

POVERTY REDUCTION BY INCREASING THE COMPETITIVENESS OF ENTERPRISES

BANGLADESH

QUARTERLY REPORT OCTOBER-DECEMBER 2011



POVERTY REDUCTION BY INCREASING THE COMPETITIVENESS OF ENTERPRISES (PRICE)

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LIST OF ACRONYMS

A	Amery Adelahi Fashyasar I Id	LEMEAD	Lasthan Oarda O Fratura Manufastura o
AAFL ALFAL	Apex Adelchi Footwear Ltd. Apex Leather Craft & Footwear Ltd.	LFMEAB	Leather Goods & Footwear Manufacturers & Exporters Association of Bangladesh
ALI AL	Apex Ecatifici Oran & Footwear Eta.	LSBPC	Leather Sector Business Promotion Council
В		LTSE	Leather Technologist Small Entrepreneurs
BADC	Bangladesh Agricultural Development Corporation		
BBMS BDT	Bamunji Beel Motsojibi Samity Bangladeshi taka (currency)	M MMCSS	Murail Matsya Chashi Samoby Samity
BFFEA	Bangladesh Frozen Food Exporter Association	MOU	Memorandum of Understanding
BFL	Bay Footwear Ltd	MRDMCSL	Murail Rural Development Multipurpose Cooperative
BFLLFEA	Bangladesh Finished Leather, Leather Goods &		Society Ltd
BPC	Footwear Exporters' Association Business Promotion Council	MT MTT	Metric Ton Modified Traditional Technology
BSFF	Bangladesh Shrimp and Fish Foundation	IVIII	Modified Traditional Technology
BSIL	Bengal Shoe Industries Ltd.	N	
BMCSS	Bhaluka Motso Chasi Somoboy Somity	NFMC	Nazirertek Fish-Dryer's Multipurpose Cooperative's
•		NGO	Non-governmental Organization
C COC	Codes of Conduct	NMS	Nokla Motsojibi Samity
COEL	Center of Excellence for Leather	0	
CST	Closed System Pond Technology	OJT	On the job training
_		OSEL	Organic Shrimps Export Ltd
DAF	Department of Agriculture Extension	OW	over-wintering
DAE DITF	Department of Agriculture Extension Dhaka International Trade Fair	Р	
DOF	Department of Fisheries	PBKS	Palli Bandhu Kallan Sangstha
DMBBS	Digherkanda Motsa-pona, Beboshahi-Kallan	PBL	PICARD Bangladesh Limited
	Bohumukhi-Somabaya-Samity	PCR	Polymerase Chain Reaction
E		PFI PFPFA	Partner Financial Institution Phulpur Fish and Prawn Farmers' Association
EBL	Eastern Bank Limited	PL	post-larvae
EFADF	Environment Friendly Agricultural Development	PMCS	Pachpir Bazar Matsya Chashi Samoby Samity
	Foundation	PRODEFCOS	T Productivity Efficiency Costing
ELISA	Enzyme-linked Immunosorbent Assay	В	
EPB EU	Export Promotion Bureau European Union	R RDA	Rural Development Academy
	Laropour official	RDF	Rakhaing Development Foundation
F		RHFL	Rupali Sea Foods Ltd.
FCR	Feed Conversion Rates	•	
FFL FSPEG	FB Footwear Ltd. Frozen Fish & Shrimp Processors and Exporters	S SABINCO	Saudi-Bangladesh Industrial & Agricultural
10120	Group	SABINCO	Investment Company, Ltd
FY	Financial Year	SLG	small leather goods
		SOP	standard operating procedures
G GAP	Good Aquaculture Practice	SSFP SSOP	Smiling Sun Franchise Program
GFL	Gazi Fish Ltd.	SSS	sanitary standard operating procedures Society For Social Services
GFFM	good fish farm management	SSURDA	Sustainable Development for Rural and Urban Areas
GHERS	Greater Harvest and Economic Return from Shrimp	SME	Small and Medium Enterprise
OID	project	SMSC	S&M Shrimp Culture Ltd
GIP GKSSE	goods in process Grameen Krishok Shahyak Sangstha Enterprise	STC SW	short term consultant Southwest
GMSS	Goldhamari Motshojibi Samabay Somity	SVV	Southwest
GUKED	Gram Unnayan Kendra Enterprise Development	T	
		TBMP	traditional best management practices
HACCAR	Hazard Analysis and Critical Control Points	TFFS	Trisal Fish Farmers-Beboshsi Somity
HACCAP	Hazard Analysis and Critical Control Points	TFRD TMBS	Technology For Rural Development Tarakanda Satata Motso Beboshahi Somity
I		TOT	training of trainers
ILO	International Labour Organization	TVET	Technical and Vocational Education and Training
IPM	integrated pest management		
ISC ITA	Industry Skill Council Imam Training Academy	U UAE	United Arab Emirates
		US	Unnayn Sangha
J		USA	United States of America
JSK	Janaseba Kendra	USD	United States dollar
K		V	
KMCSS	Kahaloo Matshya Chashi Samoby Samity	V VAP	value added product
KMFMCSL	Kansat Mango Farmers Cooperative Society Limited		
	·	W	
L	Loget Davidoped Country	WSSV	White Spot Syndrome Virus
LDC	Least Developed Country		

EXECUTIVE SUMMARY

During this quarter, PRICE continuted its activities in the horticulture, aquaculture and leather product sectors. This quarter, PRICE-supported SMEs and farmers increased sales by \$34.3 million. More than 6,200 new jobs were created across the value chains and investments grew by nearly \$717,000. PRICE focused on training this quarter, and trained nearly 14,000 farmers and SMEs on technology and almost 10,000 on improving management. Additionally, more than 1,200 people, belonging to the aquaculture and leather products sector, participated in various PRICE-supported workforce development programs.

PRICE continued its value chain activities in the **horticulture** sector focused on potato, eggplant, and mango production through working with sev-

PRICE PERFORMANCE Oct-Dec'11		
INDICATOR	ACHIEVED	
Sales increased	\$ 34.30 million	
New jobs created	6,229	
Investment increased	\$ 717 thousand	
Farmers/SMEs trained in technology	13,922	
Farmers/SMEs trained in management	9,997	
Workforce development training	1,239	

eral SMEs, farmer associations, NGOs, and enterprises. PRICE's interventions in quality inputs, compost and pest management, post-harvest handling, and market linkages bolstered farmers' productivity. PRICE facilitated several trainings on potato production and post-production technology, safe production of vegetables, and the production and promotion of vermi- and tricho-compost. These trainings aimed to induce successful transformation of the horticulture sector in Bangladesh.

As a result of PRICE interventions this quarter, its horticulture partners increased their sales by approximately \$12.3 million and created 818 new jobs in the sector. The total investment increased by \$15,000 in fixed assets. In addition, a total of 6,305 farmers were trained on improved technology.

In the **aquaculture** sector, PRICE signed a Memorandum of Understanding (MOU) with eight partners in the southwestern part of the country this period. These partnerships facilitated mass public awareness campaigns in the southwest region for the shrimp sector in collaboration with Bangladesh Frozen Foods Exporters Association (BFFEA). PRICE also facilitated several in-country study trips for its aquaculture partners in different parts of the country where fish and shrimp farming activities and production are at higher levels than that of the the visiting partners.

This quarter, PRICE continuously assisted fish and shrimp seed producers to ensure quality seed production in various ways such as encouraging fish hatcheries to raise quality brood and improve brood bank management. Furthermore, PRICE encouraged private Post-Larvae (PL) testing labs to continue testing and increase the supply of screened shrimp PL for farmers. Under the Greater Harvest and Economic Return from Shrimp (GHERS) initiative, PRICE continued to promote three types of improved farming practices (i.e. CST, MTT, and BMP). In order to build upon the results achieved by the GHERS, PRICE extended the initiative until December 2012. In addition to the work performed under the GHERS, PRICE supported shrimp farming associations in the southeastern region (i.e. Cox's Bazar) of Bangladesh.

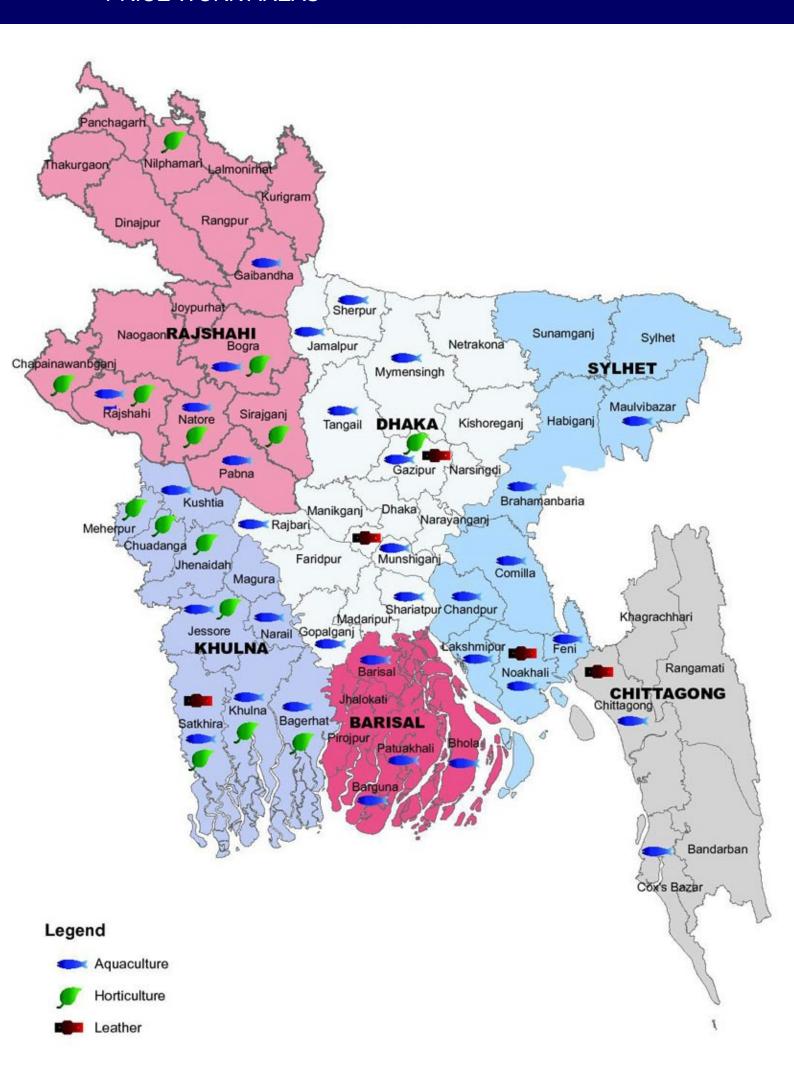
PRICE also arranged a series of visits for Dhaka and Washington-based USAID officials to observe its aquaculture partners' activities in the Bagerhat and Khulna regions. The activities encompassed the monoculture of shrimp, integrated farming of prawn and fish, and embankment crops. The project also continued routine activities such as arranging training programs, in-house counseling, lesson learning workshops, and follow-up programs for former trainees.

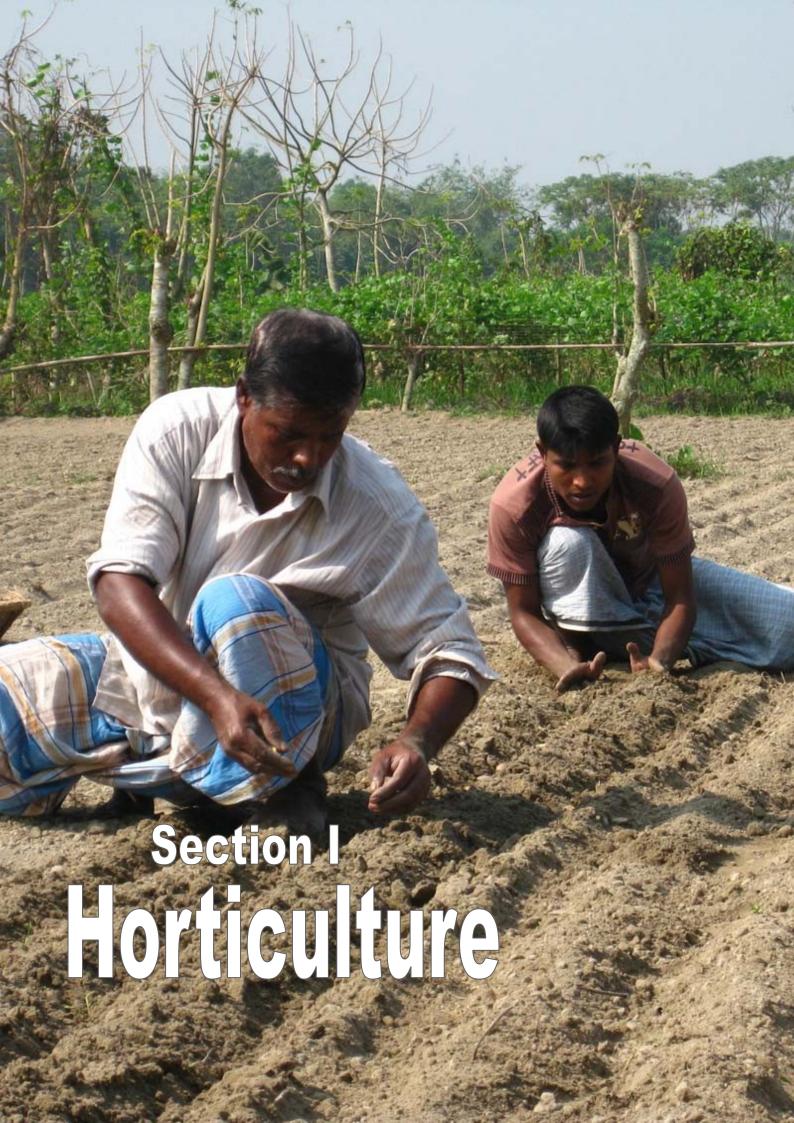
PRICE's aquaculture activities this reporting period led to additional sales of nearly \$13.7 million. More than 4,850 jobs were created across the value chain, and investments increased by nearly \$702,000.

In the **leather products** sector, PRICE continued its efforts in workforce development. Additionally, PRICE helped SMEs obtain better access to bank loans and strengthened their institutional capacity through training programs. PRICE also helped SMEs expand their business linkages and sales participation through trade fairs.

PRICE helped generate \$8.4 million in new sales and 558 employment opportunities in the leather sector during this period. Through PRICE's efforts, nearly 670 employees were trained, and 16 SMEs received access to bank loans.

PRICE WORK AREAS







In October, the preparation for growing horticultural winter crops, such as potato, begins. Although potato prices were remarkably low last year and the incentives for growing crops were limited, many farmers in the southern and northern regions of Bangladesh prepared to grow potatoes.

PRICE continued to support the production of potato, eggplant, and other high value crops through increasing productivity, improving access to quality seeds and other inputs, promoting the use of compost and integrated pest management practices, and minimizing post-harvest losses. Additionally, PRICE increased access to markets which helped improve domestic supply of produce and realize export potential. During this quarter, PRICE, in collaboration with several SMEs, farmers associations, NGOs, and companies, worked towards strengthening potato, eggplant, and other high value horticultural crop value chains to improve farmers' livelihoods. This quarter, PRICE helped partners organize trainings for farmers on potato production and post-production technology, safe production of vegetables, and production and promotion of vermi-and tricho-compost. Through these efforts, PRICE is helping create an enabling environment for the horticulture sector in Bangladesh, thereby contributing to its successful transformation.



A.1. Potato Seed

A.1.1.Assisting Tissue Culture Laboratories in Producing Disease-free Potato Planting Materials

Potato tissue culture (TC) laboratories are the main sources of disease-free planting material. Thus, strengthened laboratories are crucial for a regular supply of high quality potato seeds. However, most of the laboratories lack trained manpower and lab technicians to produce high quality planting material, consequently hindering potato seed multiplication. As this industry is in its early stages, it requires extensive support to build the capacity of laboratories.

PRICE has been working towards improving the skills and knowledge of technicians, who usually lack a strong educational background in biological and agricultural sciences. The capacity of the new TC labs needs to be increased in order to have disease free seed production technology established in the country. PRICE provided trainings to promote a continuous technology transfer to potato field technicians and the staff of seed enterprises.

In order to strengthen laboratories, PRICE assisted Seed Potato Growers Association (Rajshahi), Ferdous Biotech (Nilphamari), Rural Development Academy (RDA) (Bogra), and Technology For Rural Development (Bogra) by giving laboratory technicians experience in potato plantlet production, mainly from meristems, for further multiplication. As a result, laboratory technicians helped improve production of potato plantlets and trained the new recruits as well. Through these efforts, the laboratories' sales and production results this period were the following:

TC Laboratory	Potato Plantlets
RDA	85,509
Ferdous Biotech	70, 000
Technology for Rural Development	35,000

A. POTATO



Picture: Net house of potato seed production by using tissue culture technology at RDA, Bogra

In addition, seed potato growers association sold 150,000 plantlets mainly to its member farmers. This year's demand for plantlets was less than the previous year as seed companies received relatively fewer orders from farmers for new seeds. This lower demand for new seeds was dictated by the low market price for table potato. Farmers mainly used their stored seeds instead of seeking replacement.

A.1.2. Facilitating the Production of Disease-Free Breeder and Pre-Breeder Seeds

Basic seeds are usually produced from plantlets. Several seed companies started producing basic seeds, but there is a need for strict quality control and expertise to develop disease-free basic seeds, usually termed as pre-breeder and breeder seeds. Thus, PRICE has been supporting its partners in producing pre-breeder and breeder seeds. Since there is a risk of infection from various diseases, especially viruses, the next two cycles of disease-free seed production from the mini and micro-tuber have been placed into a protective net house, following strict phyto-sanitary measures. PRICE aims to ensure that potato seed enter-prises follow strict control measures in disease-free seed production, instead of multiplication from certified seeds.

During this period, PRICE helped Technology for Rural Development, RDA, Ferdous Biotech Ltd., Potato Seed Growers Association, Konica Seed Company Ltd., Unique Seed Company, and Sajib Seeds organize pre-breeder seed production from tissue cultured plantlets as well as breeder and foundation seed production in net houses, under the supervision of experts.



With PRICE's technical support, Konica Seed Company continued producing pre-breeder seeds of the Cardinal variety from mini-tubers across 0.45 acres of net house. The company also established seed plots for foundation seed production in eight acres of land from their own 3,300 kg of breeder seeds produced in the net house last year and collecting additional 3,000 kg of breeder seeds from RDA. Unique Seed Company established basic seed production of the Diamant and Cardinal varieties of potato from plantlets across 1.17 acres of net house and breeder's seed in one acres of land, while they are also planted breeder seed across 33 acres of land. PRICE also provided technical support to RDA for the establishment of net house with their own plantlets across 1.49 acres,

breeder's seed across two acres, and foundation seed across 5.45 acres with the Diamant, Cardinal, Lady Rosetta, and Asterix potato varieties. Sajib Seed, another PRICE partner, planted breeder seeds in 2.33 acres, foundation seeds across 14.85 acres, certified seeds of the Diamant, Cardinal, and Lady Rosetta varieties across 3.33 acres. PRICE is also assisting Technology for Rural Development in disease-free potato seed production. This year, the company planted tissue culture plantlets across 0.66 acres and established 16.50 acres net house for breeder's seed production. The company also planted breeder and foundation seeds across 34 acres of land. PRICE assisted Ferdous Biotech in planting plantlets in 0.82 acres and breeder's seed across 2.80 acres of net house. The company also planted foundation seed across four acres of land. Members of the Seed Potato Growers Association of Rajshahi established net house across 3.3 acres of land for basic seed (pre-breeder) production.

A.1.3. Facilitate in Piloting Potato Seed Village: for easy access to seed at the villagers doorsteps

The Sherpur and Shahjahanpur upazillas are two of the most important potato areas of Bogra, where thousands of farmers grow potatoes every year. However, the dearth of good quality seed hinders good yields. To overcome the problem, PRICE collaborated with RDA in launching a "Seed Village" in Sherpur and Shahjahanpur, where 50 farmers in two groups produced potato seeds under the technical supervision of RDA's experts.

Under this program, fifty farmers from these areas were trained by potato experts to produce mini-tuber, breeder, foundation, and certified seeds. The aim of this program is to help them master the technology of producing tissue-culture-based potato seeds in order to make those areas sources of high-quality certified seeds for the region.

In the Dhwapara village in the Sherpur Upazilla, twenty-five targeted farmers have established three net houses on 0.68 acres of land where plantlets and mini-tubers of the Diamant and Cardinal potato varieties were planted by the three lead farmers. The remaining 22 farmers planted foundation seeds on their eight acres of land. While in the Baroanjil seed village, one net



house was established by one lead farmer for mini-tuber production from plantlets supplied by the RDA's tissue culture laboratory. The remaining 24 farmers planted foundation seeds of the Cardinal and Diamant varieties for certified seed production across eight acres.

Overall, crop conditions were good and farmers managed their seed potato under the technical supervision of PRICE consultants. Neighborhood farmers regularly visit their plots. Field days will be observed from January through February 2012 where farmers will share their experiences.

A.1.4. Supporting Seed Enterprises for Certified Seed Production Through Contract Farming

PRICE provided support to PRIDE Agro Enterprise Limited to organize trainings for two groups, consisting of 60 seed potato contract farmers. The training, "Improved Potato Seed Cultivation Technology through Contract Farming," was conducted by potato seed experts and was held in Shomeshpur and Notunhat of Jessore Sadar. PRIDE Agro Enterprise also organized a supply of 16,416 kg of potato seeds for the trainees, of which 3,600 kg were supplied by PRIDE and the rest from BADC and Classic Seed Company. Farmers planted certified Diamant and Cardinal variety seeds across 27.37 acres of land with good crop conditions. PRICE and PRIDE Agro Enterprise have been providing regular technical service to the farmers during production.

Konica Seed Company, another PRICE supported company, extended their potato contract farming area to Kadipur of Damurhuda Upazilla and Baiddanathpur of Jibonnagar Upazilla and provided hands-on training to 130 contract farmers to produce Cardinal variety seed potato across 115 acres. In addition to providing financial support, Konica also supplied disease-free foundation seeds (74,160 kg), fertilizer, and other chemicals to their contract farmers. Together, PRICE and Konica Seed Company are providing technical supervision during the production.

Ferdous Biotech, another PRICE partner, also organized contract farming involving 25 contract farmers across 16.7 acres in Joldhaka, Nilphamari. Seed and other inputs were provided for certified seed production in the Diamant, Cardinal, and Granola varieties. Aside from contract farming, the company also established its own production facility on 2.31 acres of land.

PRICE supported one of Bogra's largest farmer associations, Shibganj Potato Farmers Cooperative Society, to initiate the production of certified seeds across 3.3 acres for use of the association members during next season.

PRICE has also established linkages between the Seed Certification Agency and its partners. These linkages will eventually help in certifying the seeds produced by the partners.

During the reporting period, Konica Seed Company marketed 912,459 kg of seed potato and 16,263 kg of table potato, generating BDT 24,808,513 in sales. Furthermore, this created employment opportunities for 2,570 (1,850 male and 720 female) in the company. Konica also invested BDT 6,028,300 (BDT 52, 420 per acre) in inputs to support their contracted farmers.

A.1.5. Demonstrations in Potato Seed Production for Technology Dissemination

PRICE assisted RDA in establishing eight potato seed demonstration plots with the Cardinal and Diamant varieties for potato seed farmers in Shibganoj. PRICE also helped Sibganj Upazilla Farmers Cooperative Association establish six demonstration plots with an average plot size of 0.15 acres to promote the use of technology for higher yields in table potato production. The area is famous for its Granola variety production, but the market price of this variety is the lowest. Therefore, PRICE also supported the association establish demonstrations with the Cardinal, Diamant, and Asterix potato varieties, as the market prices of these varieties are much higher.

Seed sowing was completed during mid-November and technical supervision was provided to ensure quality table potatoes were produced for exporting. Neighborhood farmers visit the plots regularly and express interest for sourcing seeds from the plots.

A.2. Promoting Processing Type of Potato Production for Value Addition

In Bangladesh, several potato industries were recently established, and new industries are emerging in potato flake, starch, and snack production (crisps and French fries). However, nearly all of the factories are facing problems, such as the shortage of regular supply of processing varieties and the lack of a proper contract farming system.

Last year, Bombay Sweets started contract farming in Bogra with the processing type of potato, Asterix. This was done in collaboration with PRICE and two other PRICE partners in Bogra (GUKED and Murail Cooperative Association). Although the effort has been discontinued, PRICE has encouraged several organizations, such as Murail Cooperative Association, Shibganj Upazilla Farmers Cooperative Society Ltd., GUKED, and Sajib Seeds to continue producing this processing type of potato. Sajib Seeds planted Lady Rosetta, another processing type of potato, across 30 acres of land under their own management and 10 acres under contract farming to provide supply for processing companies. PRICE is also assisting Blue Moon International in the production of the processing type of potato, Courage, under a contract farming system to supply potatoes to Bombay Sweets.

Cultivation of the processing type of potato in and around Shibganj has increased, helping farmers obtain access to best quality dual purpose potato. The market demand for the variety is also high, helping farmers obtain higher prices in return.

A.3. Facilitating the Increase of Table Potato Productivity



Potato is a great food security crop for poor households, as its yield per unit area is much higher compared to other starches grown in Bangladesh. With a modest start in the central part of Bangladesh, the crop has expanded extensively in the northern region. However, in the south, the potato is not a highly cultivated crop, although there is enormous potential to expand commercial and homestead production. PRICE continued to expand potato production in the south during this quarter through supporting several partner organizations.

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A. POTATO

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Enterprise, Rural Reconstruction Foundation, and Shushilon to assist vegetable farmers who are either growing potatoes or are interested in growing potatoes. PRICE also signed an MOU with PRIDE Agro En-

terprise to extend its service area and support thousands of new farmers growing potatoes.



Through these MOUs, PRICE helped organize smallholder farmers for potato farming and conducted 91 training sessions for 2,730 potato contract farmers during November-December 2011. Among these trainings, two day-long training sessions were conducted for 2,340 new farmers while one day refresher trainings were conducted for 390 farmers.

The trainings focused on modern cultivation methods of table potato cultivation, particularly on seed quality, seed cutting and

treatment techniques, planting methods, fertilizer doses and fertilizer application methods, earth raising, soil moisture management, pest and disease identification and control, spraying schedules, type and doses of pesticides, clean cultivation methods, haulm killing curing, harvesting, sorting, grading, and packaging.

PRICE supported Dipti Agro Enterprise to organize twenty trainings on "Improved Potato Cultivation Technology" in December 2011. Five hundred and ten farmers who attended the training planted potatoes on 249 acres of land with two table potato varieties (Cardinal and Diamant). The enterprise assisted the table potato farmers with inputs. Technical supervision is being provided to the farmers by a field technician to ensure they receive the advice they need.

PRICE also worked with PRIDE Agro Enterprise to organize trainings for 660 potato farmers of Jessore. Seventy six female farmers participated in the training and cultivated 215 acres of land for potato cultivation. PRIDE Agro Enterprise provided 6,000 kg of potato seeds while organizing certified potato seed from authentic sources including BADC. The enterprise is organizing farmers for contract farming of seed potato (Cardinal and Diamant) and has been assisting with input supply and technical supervision. PRIDE Agro Enterprise plans to buy part of the potato from the farmers.

Jagoroni Agro Enterprise organized two day trainings on 'Improved Technology on Potato Cultivation through Contract Farming' for 330 farmers. The enterprise organized 30 potato farmer groups and farmers learned about seed selection, the accurate treatment and cutting systems of potato seeds before sowing, and the balanced use of fertilizer in their potato fields. Potato farmers are now managing their crops well. PRICE technical staff supervised 330 farmers on 412 acres this guarter.

Proshikhito Jubo Kallyan Agro Enterprise (PJKAE) organized two-day farmer trainings on "Improved Technology on Potato Cultivation." The enterprise established linkages between quality seed suppliers and farmers to improve quality seed availability. PJKAE's field staff supervised the farmers' activities on the field. Twenty potato farmer groups were formed and 360 farmers, of which 49 were female, received trainings on

improved technology on potato cultivation. As a result, the trained farmers planted 109 acres land and expect good yields.

Rural Reconstruction Foundation (RRF), a new enterprise, signed a MOU with PRICE and then organized 33 potato farmers for trainings. RRF completed a two-day farmer training for three batches. Additionally, after 90 farmers received the "Improved Technology on Potato Cultivation" training, they planted 31 acres land for potato cultivation. RRF's field staff is supervising farmer activity on the field.

Farmer's Training on

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Filtering 2 Training

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Shushilon, a new NGO in the south, has signed a MOU with

PRICE in as well. They organized farmers in groups and completed a two day farmer training on "Improved Technology on Potato Cultivation through Contract Farming." One hundred farmer groups were formed consisting of 540 farmers, of which 157 were women.

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Krishok Bandhob Karmosuchi, another PRICE partner in the south, organized and completed farmer refresher trainings on modern potato cultivation technology. KBK established linkages between quality seed suppliers and seed farmers. PRICE provided field consultants and supervisors for technical hands-on counseling for farmers. One hundred fifty farmers were trained and farmers cultivated 92 acres of land for potato cultivation. Farmers also obtained quality potato seed for cultivation. To increase the area's potato productivity, PRICE facilitated the trainings which were aimed to improve the knowledge and skills among potato farmers. PRICE also assisted the farmers in getting the required inputs in a timely manner. Krishok Bandhob Karmosuchi is providing technical supervision to ensure good harvests.

In the north, where PRICE initiated its activities, PRICE and GUKED continued to support the organized farming of table potatoes, reaching 2,872 potato farmers and 2,598 acres of land. GUKED is providing inputs and financial services to their farmers.

PRICE has been strengthening Murail Cooperative Association (MRDMCSL) through providing technical support to its members. With PRICE's support, MRDMCSL completed a training on modern farming of potato cultivation for 650 potato farmers, of which 230 farmers were old members and 420 were new. The farmers cultivated potato across 365 acres. PRICE is also providing technical assistance to the farmers through consultants.

PRICE signed an MOU with Shibganj Upazila Farmers Cooperative Association of Shibgong (Bogra) to assist 2,400 farmers in growing potatoes across 2,949 acres. During this quarter, PRICE helped the association train 1,000 potato farmers on modern potato cultivation. PRICE has also supported the farmers during the production period by providing a potato expert consultant, three field supervisors, and an organization strengthening consultant for guidance.



Eggplant can be cultivated during different times of the year in various areas depending on the available varieties and cropping patterns. During this quarter, in some areas of Jessore, farmers started planting eggplant early to obtain better prices. This year, farmers were unhappy with the prices they received from agricultural crops, which were lower than previous years. At times, they were unable to break even through sales. However, eggplant was different. Farmers received good prices throughout the year which prompted some farmers in Jessore to plant early.

B.1. Increasing the Capacity of Eggplant Farmers

PRIDE Agro Enterprise organized training for 420 farmers. Eggplant farmers were organized in small groups and participated in a two-day training, "Improved Technology on Eggplant Cultivation through Contract Farming," for new eggplant farmers. Two hundred and ten eggplant farmers who received trainings the previous year were also given refresher trainings on modern cultivation and crop management for eggplant. PRIDE Agro Enterprise distributed 9,090 seedlings of the best variety eggplant to 15 smallholder farmers in order to replace the existing local variety. With PRICE's support, the enterprise helped 360 eggplant farmers use improved technology for eggplant cultivation.

B.2. Establishing Demonstration Plots for Using Compost for Winter Eggplant

Vermi and tricho composts are useful in securing higher yields with the minimum use of chemicals. PRICE has been supporting eggplant farmers in the north to grow eggplant by using vermi and tricho compost as well as tricho liquid for better disease and pest management. During the winter, farmers in Bogra and Shirajgonj were given hands-on training and demonstration plots were established to showcase the effects of compost and tricho liquid on productivity and pest management. PRICE helped Riya Fertilizer establish six demonstrations, and Grameen Krishok Shahyak Sangstha Enterprise (GKSSE) established four eggplant demonstration plots. The crop condition was good and farmers received good yields.





C.1. Assisting the Mango Farmers in Increasing Productivity

Chesta Agro Enterprise, a PRICE partner in Jhenaidaha, supported mango farmers during the orchard floor management season. This quarter, 300 mango farmers (83 female), were trained on different topics related to orchard management for proper flowering of mangoes. Farmers were specifically trained on irrigation, fertilizer management, tilling, and leveling the orchard floor for pest control. Thirty farmers attended the training at the Kotchand and Chougacha upazillas in Jhenaidaha.

PRICE's support helped Chesta Agro Enterprise form 33 farmer groups where 300 group farmers received guidance from the field technical supervisors. They also received technical information on mango orchard management from the trainings. The trained farmers brought 200 acres of mango orchards under an organized contract farming system.

PRICE signed a MOU with Adorsho Foundation Agro Enterprise to support 750 mango farmers in managing 960 acres of mango orchards in Chudanga Sadar and Damuhuda. The enterprise organized farmers for a one-day farmer training on "Improved Mango Orchard Management and Contract Farming of Mango." One hundred and twenty mango contract farmers learned modern production methods, including planting material selection, planting time and techniques, fertilization and irrigation, pest and disease management, harvesting and post-harvest handling, and marketing. The enterprise's field staff is providing technical support to the mango farmers, who are currently organized in 21 groups. Eighty acres of mango orchards are now under proper management practices. The trainees were provided with training materials, prepared by PRICE sector team in collaboration with technical experts and scientists.

D.1.Safe Vegetable

D.1.1. Supporting Safe Vegetable Production in the Dykes of the South

Renaissance, a new agro enterprise, has organized and completed a two-day training, "Improved Technology on Safe Vegetable Cultivation through Contract Farming," for 600 trainees (518 female). Through the training, farmers learned about seed bed preparation, hardening of seedlings before transplantation, and balancing fertilizer use on the field. Furthermore, farmers are now aware of quality seeds as the training provided seed related information. Renaissance's farmers planted 536.76 acres of land for safe vegetable cultivation. The cultivation practice is in dykes and farmers are minimizing the use of pesticides in vegetable cultivation to keep the soil and water bodies safe for fish, rice, and vegetable cultivation in an integrated farming approach.



D.1.2. Organizing New Farmers Groups for Contract Farming of Safe Vegetables

Organix, a PRICE partner in Khulna, did not train any new farmers this quarter but organized 14 new farmer groups for contract farming in safe vegetable cultivation. The groups were given counseling and technical advice on safe vegetable cultivation in addition to receiving Mehogoni oil and pheromone traps to control pests.

One hundred and eighty farmers from Organix received technical support, inputs, and financial assistance during the quarter. The farmers were able to increase their vegetable production by 10 percent more than the last season. They also reduced the use of chemical pesticides by approximately 50 percent. Household income increased about nine percent from vegetable production and each household increased its daily vegetable consumption. Organix purchased and marketed 55 percent of its total production. Due to better market access and better production techniques, farmer's level of investment has increased to about 10 percent of the total cost.

Organix sold 197,874 kg of safe vegetable and the total sales revenue of the enterprise was BDT 5,128,825. This has generated 750 (525 male and 225 female) casual employment opportunities in the enterprise. The enterprise invested BDT 1,360,900 as variable investment in the reporting period.

Environment Friendly Agricultural Development Foundation (EFADF), another PRICE partner in Khulna, has been promoting safe vegetable production and marketing through organizing and supporting resource poor marginal farmers. The enterprise organized 180 new farmers in addition to its 500 existing farmers and trained them on safe vegetable production. Farmers attended a two-day course where they learned various techniques in safe vegetable cultivation for tomato, eggplant, bean, and bottle gourd. Thirty farmers who had received training previously also received a one-day refresher training. As a result of these efforts, approximately 60 acres of dyke land is now under safe vegetable production. Two hundred and ten trained farmers (54 female) obtained access to quality seeds, organic fertilizer, and technical information. EFADF also established a farmer's information center where field supervisors and field extension agents of the Department of Agriculture Extension (DAE) can be consulted for technical input and market price information for vegetables. PRICE is supporting the enterprise in delivering these services to the farmers.

During the reporting quarter, EFADF Agro Business sold 1,742,345 kg of safe vegetables directly. PRICE supported EFADF Agro Business to establish linkage with the wholesalers and marketing agents of Khulna and Dhaka and the trained farmers, through which they marketed 1,432,320 kg of safe vegetables and the total sales revenue generated amounted to BDT 46,254,869. Moreover, the enterprise created casual employment for 1,119 men and 742 women during this period.

D.2.Organic Compost

D.2.1. Assisting in Soil Health Management and Sustainable Production through Compost



PRICE continued supporting the production and promotion of organic compost for vegetable farming in order to improve declining soil health and sustain productivity.

During this reporting period, PRICE assisted GKSSE in organizing a training for 805 smallholder vegetable farmers on using organic fertilizers. Simultaneously, the technical training and orientation course on the use of organic fertilizer was organized for 65 field staff members of the Department of Agriculture Extension.

With PRICE's support, Riya Fertilizer, another PRICE partner in Sirajgoni, organized trainings for 495 smallholder vegetable farm-

ers on using organic fertilizers for growing vegetables in 198 acres of land. The farmers' trainings were held in Belkushi, Sirajgonj Sadar, Ullapara, Tarash, Shajahanpur, and Gurudashpur across the Bogra, Sirajgonj, and Natore districts. After using the compost, farmers reported that their average per unit area vegetable production increased to about 20 percent and production costs reduced by about 30 percent, due to the limited use of chemicals. Using organic fertilizer also helped improve soil condition, and crop quality. The enterprise also organized an orientation course on organic fertilizer for 104 field staff members of DAE. DAE's field staff has been playing an important role in disseminating the organic fertilizer technology.



During this quarter, farmers produced potato, eggplant, country bean, cucumber, onion, and green chili by



using organic fertilizer, compost, and tricho-extract as a plant disease protecting agent. By doing so, they achieved higher crop yields and contributed to the overall soil health through a sustainable production method.

Jaipurhat, and Mymensingh districts.

The marketing network GKSSE has also developed through PRICE's support, and has expanded to four districts. During the quarter, GKSSE increased its production and sales of organic compost to 368.4 MT, earning total revenue of BDT 8,523,700. As a result of PRICE's help, Riya Fertilizer's sales increased from 122,000 kg to 420,000 kg and its marketing network was extended to the Sirajgonj, Bogra, Nator, Pabna, Jossore, Choadanga, Gazipur, Kishoregonj,

D.2.2.Supporting enterprises through Volunteer expertise

PRICE supported one of its partner, EFADF Agro Business to produce vermi- compost by using red worms . The enterprise was producing compost from plants wastes and coco coir but could not make much headway in its operation. PRICE provided one international Volunteer expert through the Farmers To Farmers programme of USAID to the EFADF during 7th to 18 December, 2011. Mr. Brian Rosa , an expert on composting helped the origination to initiate vermi- compost production following an interesting technique. Through the new trechniques the feeding process by the worms were made faster and quicker .Alonmg with cowdung and chicken litters which were the main raw material for Vermi- Compost cookout coir dust and tea dust were also used as raw material with some success. By adioption of the new method it is expected that the time and cost of for production of compost will be minimized.

D.2.3. Establishing Demonstration Plots on Compost Use

GKSSE established 33 demonstration plots for using organic fertilizer in potato, radish, bitter gourd, cabbage, cauliflower, onion, chili, eggplant, bean, and pumpkin production. These plots were set up in the Pachbibi, Bogra Sadar, Joypurhat Sadar, Kali, and Shibgonj upazillas. The conditions of the demonstration plots were excellent and neighborhood farmers are visiting regularly to observe performance and share ideas.

Riya Fertilizer also established 30 demonstration plots for using organic fertilizer for various vegetables (cucumber-2, bitter gourd-2, potato-4, eggplant-6, onion-5, garlic-5, pumpkin-4, and green chilli-2) in the Ullapara, Gurudaspur, Boraigram, Tarash, Mohonpur, and Shajahanpur upazillas. Riya Fertilizer also organized six field days for 600 vegetable farmers in Sirajgonj, Mohanpur, Borigram, and Ullapara to monitor crop performance, share results, and exchange ideas.

D.3. Vegetable Seeds

D.3.1.Promoting Good Quality Vegetable Seeds through Contract Farming:

During the reporting period, PRICE assisted M/S Padma Seeds organize training for 309 contract farmers on commercial vegetable production through contract farming.

Two-day theoretical and practical trainings were provided to farmers. Farmers were exposed to breeder seeds, planting techniques, crop management, rouging, isolation, plant and crop protection, soil nutrient management, harvesting of seed and fruits, post-harvest handling, seed cleaning, drying, and packing. After the training, farmers registered seed for production of best quality vegetable seeds in their 190 acres of land.

M/S Padma Seeds was able to acquire good quality seeds from dependable sources, which they supplied to their contracted 601 farmers. The crop composition and distribution of the seed supply is detailed in the following table:

Type of Seed	Quantity	No. of farmers given to
Pumpkin	38.7 kg	97
Bottle Gourd	21.5 kg	82
Bitter Gourd/Goz Co- rolla	10 kg	58
Onion	8.5 kg	7
Cucumber	20 kg	102
Chili	13 kg	37
Eggplant	2 kg	26
Ridge Gourd	10 kg	23
Indian Spinach	60 kg	14
Red Amaranth	105 kg	106
Stem Amaranth	7 kg	14
Kangkong	70 kg	35

After providing seeds and other inputs, the enterprise signed a formal contract with trained farmers for seed production under the leadership of selected farmer group leaders.

D.4. Market Linkages

D.4.1. Facilitating Market Linkages for Seed Potato

PRICE assisted its partner enterprises in strengthening their marketing networks through establishing market linkages. PRICE supported GKSSE, Riya Fertilizer, Konica Seed Company, RDA, and other several partners in building new market linkages.

With PRICE's support, Unique Seed established a marketing network for seed potato in and around Bogra, resulting in 130 MT of total potato seeds (breeder and foundation) in sales this quarter. The sales revenue in Q1 (Oct-Dec'11) was about BDT 4,126,750.

PRICE also supported Ferdousi Biotech in establishing its first market network through which the enterprise sold 97,055 kg of breeder seeds, 71,810 kg foundation seeds, 63,745 kg of certified seeds and earned revenue about BDT 9.573.601.

PRICE also supported RDA in expanding its marketing network for selling its good quality plantlet and seeds. As a result, RDA sold 66,972 kg of potato seeds (pre-breeder-4,160 kg, breeder -13,600 kg, and foundation- 49,212 kg).

D.5.Access to Finance

D.5.1. Facilitating Access to Finance

During the reporting period Konica Seed Company provided BDT 6028300 to 130 farmers of Chudanga and Moheshpur for procurement of seeds, fertlizers, irrigation and to meet other expenses for farming 115 acres of seed potato. The credit provided by the Konica Seed Company is interest free and would be adjusted with during buying of seed potato from the farmers. Padma Seed Company also gave BDT 400,000 as credit to 400 small vegetable seed producers of Chudanga and Meherpur. PRIDE agro Enterprise also provided credit to the farmers to the tune of BDT 500,000 for their 120 farmers for production of seed potato mainly for procurement of seed and fertilizers. GUKED Enterprise Development provided seasonal loan amounting BDT 25,000,000 to 2872 potato and BDT 10,635,000 to 709 vegetable farmers of Shibganj and Shahjahanpur of Bogra to grow crops during season. Shushilon another PRICE partner gave BDT 1,200,000 to their 2500 trained farmers to grow potato, water melon and other high value crops in the Khulna region. Renaisance , a local NGO of Chitolmari, Bagerhat gave BDT 120,000 as credit to their dyke based vegetable farmers , specially to 1200 trained women farmers .

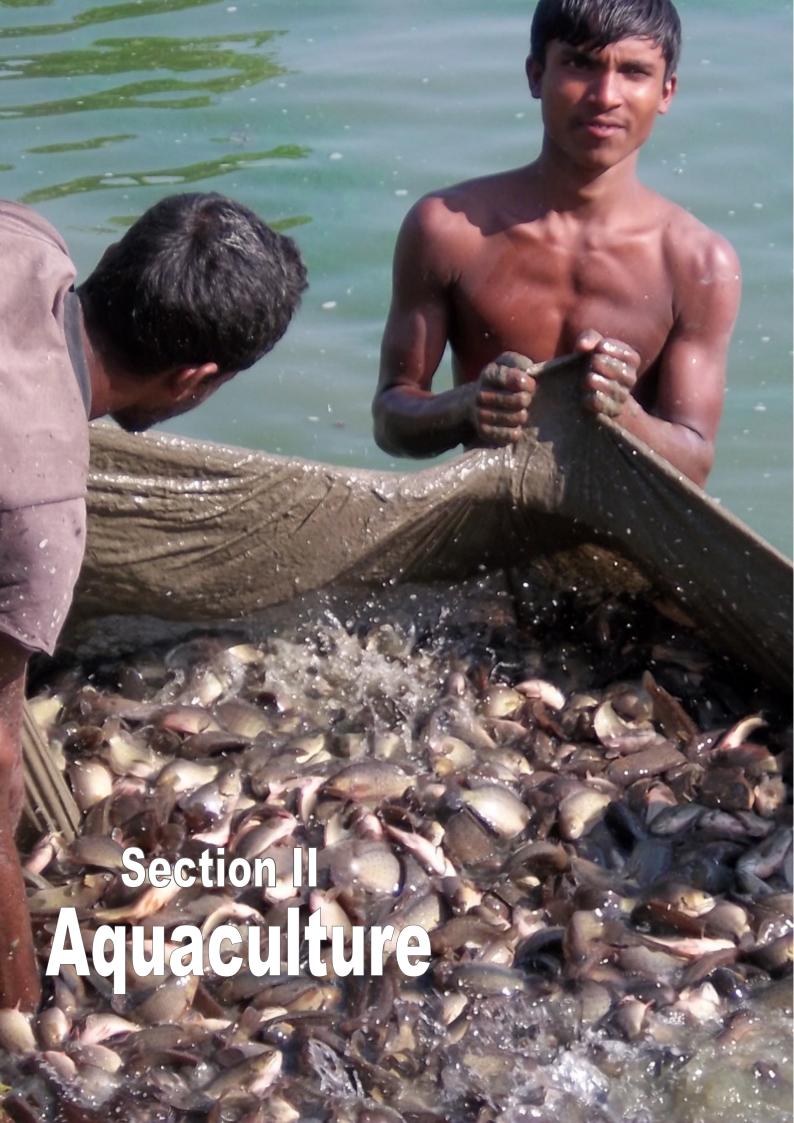
D.6. Gender Equity

Most of the commercial horticulture farms are operated by men however women are also involved mostly in seed processing, planting, preservation seed and recently became major link between the farms for getting credit for farming from the Micro finance institutions. PRICE is encouraging women by giving them training directly to undertake farming by as well as involve in farming along with their male counterparts by taking various responsibilities like access to credits and inputs, seed preservation and processing, sowing and harvesting, keeping accounts and maintaining planting time.

PRICE is also supporting three women headed enterprises, viz., GKSS Enterprise for production and marketing of compost, Ferdous Biotech for its tissue culture laboratory and production and marketing of disease free seed potato and Technology For Rural Development for production and marketing of tissue culture plantlets and seed potato. Through the interventions of PRICE more number women developed their skill in potato seed cutting and planting during this season and got employment in the seed and table potato enterprises.

During the period several PRICE partners provided training to women farmers on mango, potato, egg plant and safe vegetable cultivation. Chesta Agro Enterprise provided training to 83 women mango farmers of Kotchandpur, EFADF Agro Business organized training for their two female farmers groups consisting of 54 women farmers of Fakirhat and Rupsha of Bagerhat and Khulna Districts. Shushilon provided training to 316 women farmers on watermelon and potato cultivation and post harvest handling in Dacope, an ecologically threatened area of Khulna. PRICE supported Renainssance to provide theoretical and practical training to 518 small farmers on safe Vegetable cultivation techniques in the dykes of Chotolmari, Bagerhat. The women farmers were immensely benefitted for the training and they have started production of various vegetable crops specially bottle gourd, tomato in the dykes. Proshikhito Jubo Kallyan A Jessore based new partner of PRICE Agro Enterprise trained 49 small potato farmers while another Jessore based enterprise organized training to 76 potato and egg plant growers of Hurgati and Bhojgati of Monirampur. It is expected that through this technical training which they got for the first time will increase their capacity in increasing productivity and help to ensure food security of the family.

PRICE has also provided two female tissue culture laboratory technicians to Technology for Rural Develoment and Rural Develoment Academy during the period through which they got employment opportunity and their capacity has also improved through learning from senior experts working in the laboratories.



OVERVIEW

The fish and shrimp farming sector in Bangladesh is gradually becoming the main supplier of protein consumed in the country. Stagnation of natural landings coupled with a population boom has created a scarcity of land suitable for fish and shrimp farming. As a result, vertical expansion was necessary and in recent years high density farming gained momentum. Aquaculture in Bangladesh is two dimensional. Farmed fish are mostly consumed locally while almost all grown shrimp and prawns are exported. Although some PRICE partners have been successful in vertical production by producing as much as 90 ton/ ha, the national average is near five ton/ha for fish and much lower for shrimp and prawn. Therefore, fish, shrimp, and prawn have potential for production increases. Although the market price of farmed fish is relatively low compared to those of natural fish, farmed fish is still profitable. Additionally, most shrimps and prawns produced in the country receive high export prices due their large size as they are produced through traditional, low density farming methods.

Fish farming takes place mostly in small fragmented closed bodies of water and is frequently done at the household level in rural areas throughout the country. Contrastingly, shrimp farming is mostly concentrated in the Southwest and southeastern parts of Bangladesh. Most of the shrimp farming areas are closed by large embankments created by the Water Development Board in the late 1950s to protect rice farming lands from saline water. During the 1970s they were converted to shrimp farming as shrimp provides more revenue than rice. Currently, the trend is somewhat reversing. Crop rotations are emerging with rice being grown in the wet season and shrimp in the dry season. There are roughly 24 freshwater fish species that are commercially farmed in Bangladesh whereas only one shrimp and one prawn species are commercially cultured in the country. Shrimp and prawn farming is popular in coastal belts in salt and brackish water. Freshwater prawn is farmed in coastal areas with mild salinity or seasonal fresh water.

The main input that determines the quality of fish, shrimp, and prawns for domestic consumption is seeds. In principle, and by law, aquaculture seeds should come from hatcheries. In practice, the quality of fish and shrimp seeds in the country is often fraught with problems. Some of these problems include inbreeding of fish due to ignorance and malpractice, virus contaminations in shrimp due to natural causes and improper screening, and a scarcity of hatchery produced prawn PL that have high production costs. PRICE works with fish hatcheries to eliminate inbreeding through the proper selection of broods; it promotes using screened PL shrimp to produce a disease free and healthy crop and encourages using hatchery produced prawn PL to protect biodiversity in the coastal waters.

Bangladesh is an overpopulated country with scarce farming and lands cannot rely on horizontal expansion alone. PRICE is working to institute sustainable high density farming techniques that mitigate environmental degradation. There are some visible signs of improvement towards adopting vertical production in some geographical locations, but the southwestern part of the country is lagging behind and PRICE is concentrating most of the project's efforts towards this region. Most of the shrimp farming areas in the country are situated in the southwest. So far there are positive signs that vertical production increases in the southwest will continue and may even occur with a greater magnitude in the future. PRICE has been paying attention to increasing productivity and improving the overall yield. This has been done by endorsing and facilitating good aquaculture practices that include the use of high quality seeds, higher stocking densities, and high quality grade feeds.

Approximately 30,000 fish and shrimp farmers have been trained to use improved farming technology, and 17,000 of these shrimp farmers were also trained on better management practices in the past year. PRICE also facilitated project beneficiaries' access to better inputs, including seed and feed, by creating market linkages between farmers, depots, wholesalers, and processing plants. Through September 2011, PRICE activities in aquaculture have led to more than \$34 million in additional sales, 6,556 new jobs, and \$1.2 million in new investments.

A. FISH



PRICE collaborated with 52 fish partners in Mymensingh, Bogra, and Cox's Bazar with a special emphasis on 20 districts in the Khulna, Jessore, Faridpur, and Barisal regions during this quarter. The project has facilitated a variety of trainings including counseling, hands on demonstrations, lessons learned workshops, in-country study trips, focus group discussions on performances, access to finance, gender integration, and helped strengthen linkages with different supply chain and value chain actors by linking the beneficiary farmers to high quality input sources.

At the beginning of the reporting period the final work plan and exit strategy of the project was finalized. Commercial fish farming in the southwest region started relatively later compared to other parts of the country since water resources in the area are abundant and they have more wild fish. PRICE's success with commercial species in other regions will be duplicated as new initiatives for the southwest region. PRICE signed with new partners exclusively for the southwest during the period and provided technical assistance

Sales increased	\$68.6 million
New jobs	3,859
Investment increased	\$1.64 million
Farmers trained in technology	16,410
Farmers trained in management	22,570
Training for workforce development	3,310

to more than 14,000 farmers including 4,600 women.

A1. Upgradation of Brood Pond Management

Hatchery produced fry and fingerlings have long been blamed by farmers for quality deterioration. Scientists have discovered genetic corruptions leading to inbreeding problems and poor brood pond management by hatchery owners and operators. Use of questionable male and female fry, often from the same gene pool, as brood fish for induced breeding purposes, is identified as one of the prime causes for fish seed quality deterioration.

PRICE partnered hatcheries use genetically higher quality broods and avoid breeding among the same genetic lines, but often face problems in brood pond management. Assistance from the USAID-funded "Farmer to Farmer Program," significantly helped to upgrade in-house brood banking in four hatcheries in

A2. Increased Outreach of Over Wintered (OW) Seeds

The traditional rain fed fish farming in the country is currently transforming into year round commercial activities in some parts of Bangladesh. This is notable in Mymensingh and Bogra due to OW seeds, use of ground water, and supplemental feeds. This period was prime time for production of OW seeds and its retention for use in future months. PRICE was able to link its partner DMBBS (fish seed trader's association) with commercial OW seed producers in Mymensingh, Bogra, and Jessore regions and expect that 2012 will be a good trading season for OW seeds. Some members of DMBBS also procured OW nurseries and low cost fish fries to produce OW seeds and expand their business. DMBBS members reported that the popularity of OW seeds is increasing among fish farmers throughout the country.

A3. New partners and Beneficiaries in the Fish Sub-Sector

During this quarter the project signed seven MOUs with new partners to train an additional 11,500 farmers and value chain actors. All of these beneficiaries are from the 11 districts that USAID's "Feed the Future" initiative has identified in the southwestern part of the country. The interventions and activities will be undertaken mainly in greater Faridpur, Jessore, and Barisal districts. Under these MOUs, farming integration and popularization of commercial farmed species will gain importance for food security focusing on the poor. Special attention will be given to increased geographical coverage to incorporate more farming land to aquaculture. It is expected that by increasing farm yields and farmers' income, investment will increase.

New Partners joining PRICE Family in Fish

During this period 5 fish based farming associations, mostly from the southwest, joined partnerships with PRICE by signing MoU. Agricultural Advisory Society (AAS); Trinomool Krishi Unnayan Samabaya Somity (TKUSS); Gondhamari Motshyagibi Samabaya Somity (GMSS); Center for Integrated Social Development (CISD); Rakhaing Development Foundation (RDF);Mulia Motshyagibi Samitee (MMS), and Chittra Unnayan Kendra (CDC).

A4. Screening of Probable New Partners

During this quarter the project short listed some prospective candidates, mostly NGOs and a few associations, to be incorporated in PRICE's fish subsector if additional resources are made available. While selecting these partners, it was determined that each possess the capacity to utilize resources and implement interventions and activities quickly. Depending upon funding, new partners will be chosen to work in the southwesernt part of the country to coincide with USAID's "Feed the Future" program.

A5. Commercial Aquaculture in Southwest Bangladesh

Commercial fish farming in Bangladesh has flourished in some areas, notably in Mymensingh, Bogra, Jessore, and their adjacent regions. The initiative has shown that with adequate facilities, aquaculture can gain momentum and the pace of farming can accelerate rapidly. Based on experience working with partners in the Mymensinghj, Bogra, and Jessore regions PRICE has made attempts to popularize commercial farming with the household fish culture in 20 districts in the southwest as new thrust areas. The southwest's aquaculture is dominated by traditional shrimp farming with some integration of fish. Where there is fish, it follows a low density mix of farming indigenous and exotic carp with little or no use of supplemental feeds. PRICE initiatives have focused on popularizing commercial farming among large farmers with some high growth species for local consumption and supplying urban areas in the southwest.

A6. New Species in New Areas

Originally, fish farming in the country started with local carp and emphasis was given to enrich water bodies to enhance natural productivity with horizontal expansion of fish farming. Later, other carp species and tilapia were introduced without changing the philosophy of farming and local and exotic carp became the main fish in the country. The aquaculture in Bangladesh is still dominated by carp, however, there are signs that this is changing. High density farming of catfish, mono-sex tilapia, and climbing perch are gaining popularity. Most of the PRICE partner beneficiaries are farming these commercial species together with carp. PRICE encouraged farmers in other areas to adopt high density farming techniques and farmers associated with partners in other areas such as Jessore, Narial, Noagoan, Chandpur, Lakshmipur, Patuakhali, and Tangail are now farming catfish and mono-sex tilapia. In addition, some farmers in Jessore and Narial have introduced stinging catfish and climbing perch farming.

A7. Improved and Better Farming Practices to Enhance Farm Yield and Management

During this quarter (October - December 2011), PRICE supported approximately 76 training for fish-farmers in different parts of the country - among them 1499 were women (39 percent). Most training programs were on improved farming techniques. These trainings covered improved, high-density, integrated, and semi-intensive culture systems. Good fish farm management (GFFM) and good aquaculture practices (GAP) are vital to increased yields. PRICE incorporated the GFFM and GAP with sessions on protecting the environment and ecosystems. Topics included reduction of water pollution, judicious feed usage, efforts to increase natural productivity, and prevention of disease.

A8. Training for Entrepreneurs and Workforce on Cage Farming

In addition to improved farming trainings on land based aquaculture, specialized training programs for entrepreneurs in cage farming were also arranged jointly by PRICE and Bangladesh Cage Culture Owner's Association (BCOA). Commercial cage farming in the country was pioneered by farmers in the Chandpur and Lakshmipur districts with PRICE assistance.

A9. Embedded Services to Increase Quick Outreach by Diverse Partners

PRICE arranged training programs to build the capacity of the fish seed traders association (DMBBS) in Mymensingh on improved aquaculture to provide embedded services to the farmers they sell fish seeds to. Traditionally feed sellers and hatchery and nursery operators convey messages on fish farming to farmers to expand their respective businesses. When farmers buy fish seeds or traders ferry seeds to farms, they teach farmers how to stock and take care of baby fish in their ponds. Therefore, fish seed traders were trained on improved farming as well as responsible transportation to lower the mortality rate of fish seeds. To provide embedded services to farmers each member of the association was given a manual written in Bengali on the basics of aquaculture focusing on acclimatization of transported fries and fingerlings, natural productivity enhancements in farms, and initial feeding and transplantation of nursed seeds to different ponds. This information has enhanced the capacity of the DMBBS members to serve thousands of fish farmers with quality fish seed and new farming techniques.

Nursery operators are important value chain actors at the grassroots level. They add value to fries produced by hatcheries and supply them to farmers. PRICE assisted linkages with nursery operators to fish seed traders and farming associations so that different types fish species could be farmed correctly after getting the proper information from nursery operators.

Hatcheries in Bangladesh are sources of farming information and act as knowledge dissemination centers to farmers through fish seed vendors. The project assisted roughly a dozen hatcheries to develop their capacity on modern farming knowledge to transmit it to farming communities as embedded services.

Two feed millers, as part of their business expansion initiatives, joined with PRICE to arrange training programs for their agents, dealers, and some farmers to increase their capacity and to provide embedded services to farmers. During this quarter, two partner feed mills produced and marketed approximately 4398 tons of feed, came in contact with 700 farmers, and provided embedded services on commercial species such as carp, catfish, and mono-sex tilapia farming.

A.10. Technical Assistances for Disadvantageous Groups

Society for Social Services (SSS) is an NGO that works for small and micro fish farming groups at the household level. SSS arranged 28 training programs on productivity for 642 female participants in the Lakshmipur, Chandpur, Tangail, and Comilla districts. Rakhaing Development Foundation (RDF), a non-micro finance NGO that works mainly for ethnic minority and ultra-poor groups in remote coastal areas, arranged trainings and follow-up programs for their beneficiaries during this quarter in the Borguna and Patuakhali regions. A mostly women-based fish farming association located in a remote coastal region adjacent to Sundarban was assisted by the project to raise fish in their household based ponds. PRICE works with roughly 75 partners; most of them small and micro level farmer associations. A significant number of the beneficiaries are household-based women.

A 11. Community-Based Farming

PRICE continued assisting two community-based fish farming initiatives in Sherpur and Jamalpur to create livelihood options through fish farming in semi-closed publicly owned bodies of water that are leased to the groups by the government. With project assistance, Bamunji Beel Motsojibi Samity (BBMS), and Nokla Motsojibi Samity (NMS) had trained 150 and 200 farmers respectively in the previous quarter and during this quarter provided those farmers with follow-up services on beel management. The beels are natural depressions often connected with nearby rivers and retain water throughout the year. The beneficiaries were encouraged to stock pre-nursed selected species, remove aquatic vegetations, and eradicate carnivore species as much as possible to decrease predation.

The two community-based groups started harvesting the raised fish and will continue to harvest during the next quarter. The fish raised in beels fetch prices similar to wild fish in the markets as no supplemental feeds are used in beels. The demand for beel raised fish is high in local markets as well as in ethnic markets abroad. The project linked beel fisherman with processors and exporters in Chittagong regions but high domestic demand for beel raised fish caused prices to rise dramatically and discouraged processors to procure them. The community groups are happy as their product gets high prices in local and urban markets in greater Mymensingh and Dhaka areas. The beel raised fish has become a delicacy and the project encourages the beneficiaries to upgrade their management so production potential can be maximized.

A 12. Promoting Hygienic and Safe Dry Fish Manufacturing and Packaging

In partnership with the NFMC in Cox's Bazar, PRICE assisted hygienically safe dry fish manufacturing, packaging, and marketing. The products produced at the NFMC generally go to the domestic market. The project arranged linkages between NFMC and local exporters and it is hoped that a new market for dry fish will open soon. Total exports of products by the NFMC are still small, but there are indications that expansion of dry fish exports will occur in the future.

A.13. In-House Counseling Based Hands-On Training & Exchange of Views

Due to the growing season, aquaculture activities during this quarter were comparatively less and farmers had more time to spend on counseling, hands-on training, yard meetings, focus group discussions, and lessons learned workshops. PRICE's staff and grassroots level organizers utilized this time to conduct these events during this period.

Since it was not possible to arrange in-country study trips for all beneficiaries of associations or all groups of farmers in an NGO, knowledge sharing events were encouraged for farmers through yard meetings and experiences of the study trips were shared by the participants to fellow members.



Unlike fish, commercial shrimp farming in Bangladesh is restricted to a single species in fresh water and brackish water, respectively. The two farmed species are the freshwater giant prawn locally known as *golda*, and the brackish water black tiger shrimp popularly known as *bagda*. PRICE mainly works with the *bagda* in the southwest's coastal districts and yields around 75 percent of total shrimp exports (about \$520 million in value during 2010-2011). Brackish water shrimp production follows extensive farming methods but low density farming with minimal supplemental feeding and management provides small yields. However, low density and long duration farming ensures relatively large-sized shrimp that has created a new opportunity for Bangladesh. Currently, the international frozen shrimp market is flooded with smaller sized species, mainly vanammei. This has created a new opportunity for Bangladesh to produce and export relatively larger sized *golda* and *bagda*. USAID has been assisting the shrimp subsector in the country to increase stocking density with disease-free seeds, instituting better management, and preventing disease outbreaks

that cause high mortality. These interventions are critical to higher yields which will increase export earnings.

PRICE is also working to evade export constraints in non-farming areas such as observing labor laws in the shrimp industry and decreasing malpractice, alleged adulteration, contamination, and increasing awareness to abide by environmental and human rights regulations. The project is trying to mitigate sector constraints through a variety of interventions.

Achievements in Shrimp during Oct-Dec'11		
Sales increased	\$3.57 million	
New jobs	3,722	
Investment increased	\$ 68 thousand	
Farmers trained in technology	2,117	
Farmers trained in management	2,117	
Training for workforce development	50	

B. SHRIMP

The project works on labor law compliance by collaborating with BFFEA (Bangladesh Frozen Fish Exporters Association) and their member processing plants. They work on compliance with labor laws, biosecurity measures, standard operating procedures (SOP), value added product development, and building the capacity of their managerial and processing staff. The number of processing plants received assistance during the reporting period remained at six, two in Jessore and four in Khulna. As part of its collaboration with the shrimp industry to expand into the export market, PRICE signed an MoU with five processing plants to explore new markets in the Middle East.

The project has been working with WFC under a subcontract to facilitate improved farming techniques with famers and depot owners focusing mainly on the southwest region of the country. In 2011, the initiative also helped farmers in southeast regions of the country. During this quarter, PRICE assisted two associations in the Cox's Bazar areas to increase the capacity of their shrimp farms by using screened PL and providing them with improved management practices. PRICE also collaborated with with BFFEA and DoF to create an awareness program against alleged bad practices among all value chain actors. In FY2011, shrimp subsector partners increased their sales by about \$3.57 million, invested more than \$68 thousand, and created around 3722 jobs.

B1. Improved Shrimp Farming by Capacity Development of Value Chain Actor

Most of the shrimp interventions under the project in the southwest are undertaken by the GHERS (Greater Harvest and Economic Return from Shrimp) initiative, implemented by PRICE's subcontractor World Fish Center. WFC organizes local depot owners and builds their capacity by facilitating improved farming techniques through unconventional, counseling based, yard meetings among grassroots farmers. The goal of GHERS is to increase shrimp farm production, improve the quality of the produce, ensure disease-free farmed shrimp, and propagate relatively high density farming.

By December 2011, thirty-three depot owners in Bagerhat, Satkhira, and Khulna jointly facilitated farmers under contract farming systems. Through this, 10,000 integrated shrimp farmers were trained on three different farm management and production techniques. During this quarter, plans have been made to extended GHERS initiative to train an additional 3500 new farmers during 2012 and also provide follow-up services to previously trained farmers.

GHERS provides hands-on, farm-level and backyard based training on three distinct farming techniques. The farming methodologies are distinct by their investment and farming management capacity, as well as the willingness of farmers to face potential risk factors. The three separate technologies are: Closed System Pond Technology (CST) which is a relatively high density controlled farming system and is the most capital intensive but allows for more than one crop in a year; Modified Traditional Technology (MTT) uses moderate stocking density with a semi-controlled farming system and introduces new practices and requires a small investment; and Traditional Best Management Practices (TBMP) teaches best practices for the traditional farming techniques regularly practiced by farmers in Bangladesh.

During this quarter, no additional GHERS farmers were trained - instead follow up services were provided by 57 extension facilitators and three extension specialists. In-house counseling was also provided by other project personnel.

B2. Laboratory Testing to Screen Virus-Negative Post Larvae

In recent years, high density semi-intensive farming of the *bagda* collapsed due to an outbreak of a deadly virus and never regained its peak production levels of 1996-1997. The incident is not specific to Bangladesh, most of the black tiger shrimp producing countries experienced the same phenomenon which is one of the main reasons countries began focusing on vanammei shrimp. The virus was later identified as White Spot Syndrome Virus (WSSV). The virus can be found under certain environmental conditions and one of the most important objectives under GHERS is to produce and popularize virus-negative PL of *bagda* that produce disease-free, healthy shrimp crops. The project assisted WFC to support a privately owned Polymerase Chain Reaction (PCR) Laboratory (Pranti) in Cox's Bazar to test shrimp seed production cycles so that virus-negative strains could be identified and traced. During the last few years, it has been reported that use of virus negative PL reduces incidents of virus outbreaks at the farm level. However, statistics comparing disease incidents between farms that use screened PL and farms that do not are not available.

B3. Training to Non-GHERS Bagda Farming Association Members

Bagda farming in the country is mostly done in the southwest region where roughly 75 percent of farming is located. The second most important *bagda* farming zone is in the southeast part of Bangladesh, mainly in Cox's Bazar district. Interestingly, almost all *bagda* seeds (PL) are produced in Cox's Bazar while most of their uses are in greater Khulna districts. It was found that though screening of PL to determine whether these are virus free or not is done in Cox's Bazar most farmers in that area are not using screened PL, therefore, efforts were made to popularize screened PL in Cox's Bazar as well. PRICE signed MOUs with two farming associations in Cox's Bazar to train 25,00 farmers throughout 2011-2012 and during this quarter a total of 30 group leaders and lead *bagda* farmers were provided follow-up trainings.

Two farming associations in Teknaf, Cox's Bazar who organized improved farming trainings for 1,500 shrimp farmers in 2011 also procured tested PLs for their farming members from hatcheries aligned with Pranti laboratory.

B4. Assisting Enterprise Based Semi-intensive Farming

As mentioned earlier, most of semi-intensive *bagda* farms in the country collapsed during 1996-1997 period due to the outbreak of a deadly virus. Gazi Fish farms Ltd. (GFL) and S&M Shrimp Culture Ltd (SMSC) are the only two large scale semi-intensive *bagda* farms in the country and are operated by Saudi-Bangladesh Industrial & Agricultural Investment Company, Ltd (SABINCO). The GHERS initiative helped establish roughly 100 CST farms, replica type small scale semi-intensive farms. PRICE signed MOUs with these two farms (GFL and SMSC) to provide technical assistance to develop the capacity of their farming and farm management staff as well as the GFL operated hatchery. In-country study trips to these two farms are planned by GHERS farmers so they can observe how to operate and manage a semi-intensive farm and the risk factors associated with it.

Large semi-intensive farms may include hundreds of acres and series of ponds where CST farms usually maintain a single pond or couple of ponds. The CST farms also stock relatively less shrimp per m² (6-8 PL/ m²) than those of large semi-intensive farms (10-15 PL/ m²). Both the GFL and SMSC use tested and screened PL for their farms and the GFL produces screened PL for itself and for the SMSC. The GFL also sells additional screened PL to farmers in the Khulna region. During this quarter, PRICE trained more than 100 workers at GFLC and 40 at SMC on judicious pond preparation, feeding, sampling, harvesting, and post-harvest treatments including post harvest handling and cool chain management. During 2011, the GFL produced approximately 24.8 million screened PL, of which 7.39 million are used at GFL and SMSC and the rest are marketed to local farmers.

B5. New Partners and Beneficiaries in the Shrimp Sub-Sector

During this quarter the project signed two new MOUs with new partners in the shrimp subsector to train 2,000 shrimp farmers and value chain actors in five districts in USAID's designated "Feed the Future" locations. Additionally, two other newly signed partners also incorporated a significant number of shrimp farmers. These interventions and activities will be undertaken in the greater Khulna and Jessore districts. Under these MoUs, farming integration and popularization of screened PL and traceable inputs will get importance for production of exportable shrimp. In addition to the partners mentioned above in the shrimp subsector, two other partners listed in the fish subsector will include shrimp and prawn among their crops. These two partners are Mulia Motshyagibi Samitee (MMS) and Gondhamari Motshyagibi Samabaya Somity (GMSS).

B6. Screening of Probable New Partners in Shrimp Sub-Sector

The project planned to emphasize partners and interventions in southwest Bangladesh during 2012 and beyond. During this quarter, PRICE shortlisted some prospective farming associations and shrimp farming groups among local NGOs to be incorporate into the project should additional resources become available. While selecting these partners it was determined that these candidates possess the capacity to utilize resources and implement interventions and activities quickly. New partners will be chosen to work in the southwest region of the country to coincide with USAID's "Feed the Future" program.

B7. Awareness Creation against Malpractice and Adulteration

The frozen food export trend in Bangladesh in recent years has shown signs that shrimp and fish exports will increase significantly in coming years. In 2010-2011 fish and shrimp exports increased by over 40 percent showing that the sector is expanding. Although the export of frozen foods from Bangladesh is increasing, buyers' rejection is still a concern for the processors. In 2009 many consignments were rejected by importers due to the lack of buyer's compliance. Once a consignment is rejected, processors are usually blamed due to the lack of traceability and difficulty in identifying who in the supply and value chain is in error.

B. SHRIMP

Moreover, during the early months of 2011 there were reports on Channel 4 in the UK and Aljazeera of the Middle East regarding adulteration and malpractice in the Bangladesh shrimp industry. To create awareness against adulteration and malpractice, a public private initiative was undertaken by PRICE in cooperation with BFFEA and DoF. Due to a bad image and negative press abroad, BFFEA planned to maintain the natural quality of raw materials in their products to make it contaminant and adulteration free. PRICE came forward to assist BFFEA and also invited the Department of Fisheries to create a joint initiative to create awareness among all supply and value chain actors.

As part of the awareness program thousands of four-color posters are distributed in public places so the message could be disseminated among the target groups. The posters are printed with pictures and messages in local vernacular. Leaflets with similar messages were distributed among participants attending workshops and hands on training sessions. In addition, leaflets were also distributed among sub-depots, depots, accumulators, suppliers, and processing plants.

B 8. Compliance for COC, BSM & FSM in Shrimp Processing Plants

Six of PRICE's partners engaged in shrimp and fish processing and exporting, two in Jessore and four in Khulna, were successful during the past few quarters due to high demand from abroad and higher domestic prices for food stuffs. The tight schedule of the processing and exporting business caused partner processing plants to delay implementation of some activities planned to be completed by December 2011.

During this quarter PRICE partners rescheduled the implementation of interventions and activities related to the code of conduct (COC), bio-security measures (BSM), and food safety measures (FSM). MOUs were extended in order to provide technical assistance on workforce development training. The trainings will cover bio-security and safety measures in addition to buyers compliance required in processing operations, personal hygiene, HACCP, SOP, SSOP, good manufacturing practices, and value-added product development.

B.9. Technical Assistances for Vulnerable Groups

MMS (Mulia Motshyagibi Samitee) is an association for small fish and prawn farming groups. MMS completed their previous MOU and arranged training programs on productivity and management at Narail areas. The project signed a second MOU during this quarter but identifying short-term consultants was delayed and the work will be completed in the first half of January 2012. MMS work mainly for religious minorities and poor farming groups in remote areas. They provide trainings for new farmers and follow up programs for their earlier beneficiaries arrange short counseling programs through in-house activities.

B 10. Facilitation of USAID Mission Visits to PRICE Shrimp Intervention Areas

USAID representatives both from Washington D.C. and Dhaka visited some areas in southwest Bangladesh. The project arranged on the spot demonstrations for high density shrimp farming and integrated fish, shrimp, and dyke horticulture crop farming in Bagerhat. At Fakirhat, Bagerhat under the GHERS initiative, implemented by the World Fish Center (WFC), a high density shrimp farming initiative popularly known as CST was observed by the USAID representatives. In their presence, healthy and disease-free marketable and relatively large sized black tiger shrimps were harvested and shown to the team members. The farming integration supports rural based food security and improves farm yields and farmers' income. During the visit, farmers said to the visiting team members that integrated farming supplies them food at the household level and revenue for the family through domestic sales and exports through processing plants.

C. SUB SECTORS CROSS CUTTING ISSUES

C1. Increasing Small Farmers' Access to Micro-credit

Enterprise based partners in aquaculture have no problem getting institutional credit. However, it is difficult for micro and small fish and shrimp farmers, especially those who are tenet farmers that lease the water bodies they use to farm. These small farmers are usually household based and produce fish for family consumption and sell their excess. These small farmers often lack collateral needed for bank loans. To overcome farmers' cash flow problems, PRICE linked micro and small farmers to NGOs for micro credits. As a result, nearly 800 micro and small scale farmers obtained loans ranging from BDT 3,000 to 15,000 (approximately \$44 - \$220), with farmers groups and associations acting as a guarantor of the loan. During this quarter a total of XX farmers received micro credits for aqua farming.

C 2. Increased In-Country Study Trips among PRICE Partners and Elsewhere

Value chain actors were encouraged to take study trips to better performing farms in other areas of the country. On principle, the project facilitates lower performing value chain actor groups to visit relatively higher performing partners to learn about productivity, farm management, general management, value addition, species farmed, market, and supply chain diversification. As a result, the transmission of information, knowledge, and skill among partners was significantly accelerated. The project also encouraged the visiting partners to arrange experience sharing yard meetings so that those who could not participate in the study tour could get information from others. During this period a total of 37 in country study trips were arranged by PRICE and its partners. Twelve farmers groups from Bogra-Pabna-Noagoan region visited greater Mymensingh areas. Fifteen groups from 15 partners in the Khulna-Jessore region visited the Bogra, Mymensingh, and Sylhet regions. Five groups from Cox's Bazar visited the Chittagong and Sylhet areas. Five groups from Mymensingh region visited the Jessore, Chittagong, and Cox's Bazar processing zones.

C 3. Lesson Learning Workshops and Follow-up Programs

During this quarter, a series of lessons learned workshops and follow up programs were arranged for old and new trainees. In these programs, group leaders or lead farmers who took in-country or foreign exposure trips were encouraged to narrate their experiences so that other members could benefit from the new information. All follow up programs included hands on trainings and demonstrations.

C 4. Gender Integration in Aquaculture

Participation of women in fish and shrimp farming has been a hindrance for popularizing aquaculture as a social movement in weak rural markets. The prospect for self employment is bright in household based aquaculture. This is due to low wages and women in rural Bangladesh usually stay at home to run the household. The project planned to incorporate and work with young adults and women as much as possible to ensure their participation in aquaculture. PRICE has taken the initiative to incorporate housewives into activities so that at the household level, women can conduct small scale aquaculture for self employment, and upgrade their family's nutrition. Including women in these efforts has helped resource poor farming families to increase their fish based consumption and limit chronic malnutrition in rural Bangladesh.

Besides formal trainings, in-house follow up trainings to previously trained farming groups and workforces, mostly women in processing plants and fish drying yards, continued during the past quarter.

To increase their skills and to make them competitive in the aquaculture business, PRICE will continue to work with thousands of micro, small, and medium women aquaculture entrepreneurs and workers. Since many women lack collateral to access to institutional credit, PRICE assisted women entrepreneurs by linking them with micro-credit and micro-finance sources for soft loans.

Through these activities, female beneficiaries are nearly XX percent of the total XX farmers and other value chain actors that PRICE is currently working in the aquaculture sector. This is more than XX times the national average of around three percent.





The Bangladeshi Leather sector is progressing strongly and is continuing to show growth in the first quarter (October - December) of the 2011-2012 financial year. Like last year, footwear and leather goods are well ahead of leather export earnings (58 percent against 42 percent of leather export revenue).

The overall target of the sector in FY 2011-2012 is set at \$792 million. However, in this reporting period, the overseas sale of leather, leather goods and footwear jumped by 21 percent, 55 percent, and 25 percent respectively compared with the same period a year earlier. In this quarter, leather has earned \$78 million, leather goods \$20 million, and footwear \$85 million from exports.

A sector specific financial product was launched for the leather sector SMEs for the first time in Bangladesh with some special features including single digit interest rates, and collateral free lending.

A. ASSISTANCE TO SME DEVELOPMENT

A.1. Support SMEs to Receive Better Access to Bank Loans: PRICE Facilitates Launching of EBL Udoy: A New Milestone for SME Development in the Leather Sector



An agreement signing ceremony of the Credit Wholesaling Program of the SME Foundation and Eastern Bank Limited's SME loan product 'EBL Udoy' was held on November 20, 2011 at Hotel Purbani International, Dhaka. Mr. Dilip Barua, Honorable Minister, Ministry of Industries, Government of People's Republic of Bangladesh and Chairperson of SME Foundation attended as the chief guest and Dr. Atiur Rahman, Governor, Bangladesh Bank attended as a special guest.

PRICE's leather products sector has been working with Aarong to help develop its small subcontractors since 2010. As a part of PRICE's access to finance initiative,

PRICE facilitated 'Access to Finance' workshops with the SME Foundation, Aarong, and a leading bank, Eastern Bank Limited.

Following these workshops, PRICE assisted 25 of Aarong's leather products producers in preparing their profiles and obtaining their trade licenses. These documents were requirements from the bank to be eligible for financial credits.

After submitting their valid documents, EBL reviewed all the profiles and customized a new product 'EBL Udoy' with a nine percent interest rate for the leather goods manufacturing cluster in Dhaka. This unprecedented customized loan for small leather goods producers is an important milestone for Bangladesh's leather sector.

Initially, EBL considered 20 applications of Aarong's producers and they were eligible to receive up to 1,000,000.00 (Ten lacs) BDT per loan. However, EBL announced that they would customize and disburse this loan for other eligible and potential leather product producers as well. To date, the SME Foundation has transferred 10,000,000.00 (One Crore) BDT to Eastern Bank Limited so they can disburse loans among the qualified applicants of leather product producers.

During the signing event a cooperation agreement was signed between the SME Foundation, PRICE, EBL, and Aarong.

A.2. Support SMEs to Strengthen Institutional Capacity: PRICE Facilitated In-depth Technical Training for Small Subcontractors of Aarong

PRICE has collaborated with Aarong to support its small subcontracting producers since 2010. Initially, PRICE worked with the owners of 20 enterprises through "techno motivational" trainings. Realizing the benefits of these programs, these subcontractors and Aarong management requested PRICE to expand their support and provide in-depth technical training to cover their workers and supervisors. This program covered the following topics:

- Basic Materials Management: properties of leather that influence quality, factors in procuring appropriate leathers, storage, post mortem solutions, and handling problems.
- Accessories and Sundries Management: characteristics of accessory items including metallic and plastic items, factors in procuring appropriate sundries, storage, and handling problems.
- Stitching and Prefabricating: prerequisites for high quality stitching including needle, thread, thread length, and machine settings. Adjustment of thread and bobbin pressure, skiving, edge finishing, and the role of adhesives.



A. ASSISTANCE TO SME DEVELOPMENT

The first two trainings were completed by September, 2011 and the last one (Stitching and Prefabricating) which is more practical and in-depth, was completed from October to December 2011. PRICE hired two industry experts to provide hands-on demonstrations to the workers and supervisors of the 20 small enterprises. PRICE designed the program in such a way that the two consultants spent two days per week with each cluster and demonstrated the ways of eliminating and reducing the technical limitations that they have been facing with their existing machines and facilities. The PRICE consultants also gave the participants several sources for procuring good accessory items and support for trouble shooting machinery problems.

The actions taken under this plan are expected to result in enhancing institutional capacity of small producers in becoming consistent suppliers of quality products. This will not only reinforce their relationship with Aarong but will also open doors for more work orders from Aarong and other new entities.

A.3. PRICE Assists SMEs in Expanding Business Linkages and Sales through Participation at Trade Fairs

In collaboration with LSBPC, PRICE signed a MoU with 16 SMEs in December, 2011 in order to extend support in promoting and expanding their businesses through the upcoming Dhaka International Trade Fair, DITF 12. These 16 enterprises occupied 19 of the 24 stalls in the LSBPC pavilion. This was an increase from last year when PRICE supported 10 enterprises. As per the agreement, PRICE will support enterprises in developing products, promoting and branding products, and hiring a consultant to coordinate and track all activities and developments at the fair. The fair will be inaugurated on January 1, 2012.

B. ASSISTANCE TO WORKFORCE DEVELOPMENT

B.1. PRICE – COEL – ILO Apprenticeship Program Gaining Momentum:

Since its inception in June 2011, this apprenticeship program has achieved the desired momentum for this quarter. Presently two parallel training programs are going on at the COEL Center, Gazipur. The primary training program is for workers and the secondary program is for floor supervisors.

The primary target is to train 1,000 workers and 50 supervisors. For the supervisors, a mix of theoretical and practical trainings has been designed to increase their management capacity. The trainings for the workers focus on the following areas.

Cutting: cutting direction, pairing, and machine pressure.

Sewing: skiving, splitting, folding, edge finishing, thread, needle, and machine adjustment. Finishing: toe and heel lasting, machine adjustment, finishing chemicals, and packing.

The purpose is not only to train both workers and supervisors and create new jobs, but also to help make COEL operational as a one point resources center and service provider to develop, support, and strengthen the leather sector workforce.

After successfully completing the apprenticeship program the workers will get certificates. The total duration of this apprenticeship training is one year, of which three months will be both on and off the job training at the floor level closely monitored by COEL. The remaining nine months will be workplace learning on factory premises based on competency-based log books. PRICE already facilitated COEL in signing MoUs with some interested companies from LFMEAB members.

In addition, 50 new floor level supervisors are undergoing training in developing their skills so that they understand the complete production process including trouble shooting in production, daily production planning, inventory management, manpower handling, and coordinating with the maintenance department. Candidates



have been selected through a comprehensive selection process including a written and oral exam. This six month program is divided equally by theoretical and practical trainings with an objective of effectively applying the theoretical knowledge into the practical sessions. All the theoretical and basic practical sessions are conducted at the COEL center. In order to enrich the overall skill level of the new staff, the program will invite 10 experienced supervisors from their respective enterprises to interact with the newcomers to share their knowledge and experience.

PRICE engaged three trainers who are using primarily the PRICE module in developing the skills of both groups. To date, 258 workers, 62 men and 196 women, have completed their three month in house training. In this reporting period 208 people were trained, 49 men and 159 women. Fifty supervisors have completed four out of their six month tenure.

B.2. PRICE-LFMEAB-Apex Extended Training Program Continues its Success

The extended program is in its tenth month and is producing results according to the original plan.

Out of its set target to develop skills of 1,200 new workers through on the job training, 316 workers, including 110 men and 206 women, received the two month skilled training in the last quarter. PRICE hired one lead trainer who is conducting the program with modules developed by PRICE that cover cutting, sewing and finishing skills. The actions taken under this plan are expected to train and produce job opportunities for 1,200 workers, and increase annual sector sales by approximately \$5 million.

B. ASSISTANCE TO WORKFORCE DEVELOPMENT

B.3. PRICE-LFMEAB-PICARD Initiative Extended to Respond to Significant Growth in the Goods Sub Sector

The export statistics reveal that the leather goods subsector is enjoying the highest growth and PICARD is claiming more than 90 percent of that growth. The PRICE – LFMEAB – PICARD primary initiative developed the skills of 600 new goods producing workers and PICARD expanded their factory to absorb most of these trained workers and captured more market share with the help of these trained personnel. The primary program ended in October and the subsequent request for an extension came to PRICE from both PICARD and LFMEAB. PRICE responded and extended the cooperation for 400 additional workers. PRICE hired one lead trainer to conduct the program that will be divided into eight to 10 sessions over the next 10 months. The trainings will cover industry safety, discipline and basics of leather goods such as engineering, cutting, sewing, and assembling techniques. Each session will include two months of on the job training.

During this period 145 new workers were trained including 68 men and 77 women. Since its inception, 681 people, 328 men and 353 women, have received skills training.

B.4. PRICE-LFMEAB-FB Footwear Workforce Development Program Renewed

A tripartite agreement between PRICE, LFMEAB and Filanto Bangladesh Footwear Ltd (FB Footwear) was signed in July 2010. Through this agreement, 1,000 new workers were trained. This 12-month long skill development program performed successfully and was completed within 10 months. The program received significant positive response from the participants. More than 80 percent of the workers were hired by FB footwear and subsequently, FB footwear's business expanded based on the skills of these new workers. After the initial success FB has requested, through LFMEAB, for PRICE to extend the program to another 1,000 workers. This structured on the job training contributed significantly to the sector's growth in export earnings and job creation. Considering the successful impact of the initial program and subsequent interest from LFMEA and FB Footwear, PRICE has agreed with FB's request and the tripartite agreement has been renewed for another 10 months for 1,000 new workers. The second phase of training started in December 2011. The same module is being followed in this phase and the main focus will be on shoe making principles and will include trainings on cutting, sewing, and finishing skills.

PRICE hired one lead consultant who will coordinate this two month on the job training program in collaboration with FB floor supervisors who were involved in the primary phase. It is expected that 1,000 new semi-skilled workers will be trained and added to the sector's workforce at the end of the program. Collectively, these workers are expected to earn an additional \$8 million per year.

C.1. Flaying Campaign during Qurbani to Improve the Quality of Basic Raw Materials

Awareness raising effort initiated by PRICE in 2008 taken up by the industry

In 2008, PRICE took an effort to raise awareness among the stakeholders regarding the importance of proper flaying and basic preservation of hides/skins during the Qurbani eid. However, other organizations did not show strong interest. In 2009 PRICE continued the effort with the support of a few other stakeholders. After noticing the importance and impact of PRICE's overall sector development, in 2010, two associations – Bangladesh Tanners Association (BTA) and Bangladesh Finished Leather, Leather Goods & Footwear Exporters Association (BFLLFEA) along with Leather Sector Business Promotion Council (LSBPC) joined PRICE in the preservation initiative and shared the cost of the activities. This year the sector associations understand the significance of the event and for the first time without any financial assistance of PRICE worked with LSBPC and conducted the program. This year BTA and BFLLFEA and LSBPC took over the lead and PRICE transferred all the knowledge, information, and experience and data to the industry stakeholders who now own the initiative. Hopefully this program, which PRICE successfully initiated, will get more momentum in years to come.



EQUITY INTEGRATION

In addressing value chain constraints, PRICE has also been working towards improving the skills of women and overcoming obstacles women face in its three sectors. Through these efforts, PRICE strives to create a competitive business environment and build awareness on issues affecting women's participation in these sectors.



Training participants involved in the fish field at Tangail.

In the fish and shrimp value chains, including shrimp processing plants, women's participation has been traditionally low, an average of merely three percent. PRICE planned to increase women's participation from three percent at the national level to 20 percent among PRICE partners. To achieve this goal of 20 percent women among the 60,000 aquaculture beneficiaries in the project, PRICE signed a second MOU with Jano Seba Kendra (JSK), a women dominated farmer group and NGO. PRICE also signed an MOU with Polli-Bodu Kallan Sanghtha (PBKS), DESHA, an association operated by housewives which has trained hundreds of housewives during 2011 on homestead aquaculture. The trainings focused on household income, self-employment, family nutrition, food security, and empowerment. The social and economic inclusion of women in integrated farming efforts has helped resource-poor farming families

increase their fish-based consumption and has limited chronic malnutrition in rural Bangladesh.

PRICE aims to work with young adults and women as much as possible to increase their participation in the

aquaculture sector. During this quarter, nearly 8,200 participants were trained on productivity, management, and workforce development of which 2,211 were women. Additionally, approximately 5,000 jobs were created, of which 320 were given to women. Seven percent female participants now have jobs.

This quarter, in the horticulture sector, nearly 6,300 participants received trainings on productivity and management, of which 1,020 were female. These trainings were organized in collaboration with Renaissance, Shushilon, Proshikkhito Jubo Kalyan Agro Enterprise, Chesta Agro Enterprise, and EFADF Agro Business. The trainings were on "Improved Potato Cultivation Technology Farming Including Contract Farming Systems," "Contract Farmers Training on Commercially Safe Vegetable Production and Marketing," and "Training on Improved Mango Orchard Management." These trainings aimed to increase the knowledge of female farmers in potato cultivation, safe



Trained rural women involved with homestead safe vegetable production at EFADF, Bollovpur, Bagerhat.

vegetable production, improved mango production, and management, as well as encourage participation in vegetable promotion activities. Yard meetings on the use of organic fertilizers were organized for the female participants to ensure quality vegetable cultivation and to encourage them to adopt the contract farming system. This period, more than 800 new jobs were created in the horticulture sector, of which 42 were given to women.

The leather industry is the fourth biggest export revenue earner in Bangladesh and plays a significant role



Trained women secure jobs at Bengal Shoe factory in Laxmipur.

in the national economy. This labor intensive industry employs more than 700,000 people, but the presence of women, particularly at the entrepreneurial and managerial levels, is limited due to the lack of required capacity and skills. The only exception is in the sewing and prefabrication departments of the footwear and goods sub-sectors where an estimated 40 percent of the workers are women.

During this period, almost 700 people were trained, of which 66 percent were women. Among the trainees, 64 percent of the female participants are employed and receive 2,500-3,000 BDT in monthly salary compensation with benefits. Among the 558 new leather jobs created, nearly 400 women were recruited. As a result, these women are now proudly contributing to their household income, and helping improve their families' living conditions. After receiving

trainings, many female participants utilized their newly acquired skills, and are aware of the critical role they can play in this field.

Annex A

PRICE PERFORMANCE: Q1'12 (OCT-DEC 11) AND ACCUMULATED

PRICE PER	KFUF	KIVIAINC	E. QT	12 (UC	I-DEC 1	T) AND	ACCU	WULAT	EU	
			I - D.T.	Oct	-Dec '11 Perform	nance	Accumulat	ed Achieveme	nt till Dec'11	
Indicator & Sector	Unit	LoP Target - Contractual	LoP Target – Projected in Oct '11	Projection	Achievement	% of Achieve- ment	Cumulative planned	Cumulative achieved	% of Achieve- ment of LoP Projection	
Total Value of Sales Increased	USD	200,000,000	276,858,786	17,165,307	34,303,301	200%	133,716,007	215,520,597	78%	
Domestic		116,994,617	174,953,332	8,445,765	24,420,893	289%	64,375,835	149,479,770	85%	
Export		83,005,383	101,905,453	8,719,542	9,882,408	113%	69,340,172	66,040,826	65%	
Aquaculture		105,000,000	170,687,361	7,000,000	13,682,422	195%	74,125,000	146,943,275	86%	
Horticulture		40,000,000	39,333,935	2,750,000	12,218,654	444%	22,500,000	31,502,589	80%	
Leather/Leather products		55,000,000	66,837,490	7,415,307	8,402,225	113%	37,091,007	37,074,733	55%	
Number of Full-time equivalent Jobs Created*	Number	40,000	49,672	5,055	6,229	123%	32,555	37,208	75%	
Aquaculture		26,000	32,057	2,200	4,853	221%	19,950	25,897	81%	
Horticulture		10,500	12,670	2,500	818	33%	9,500	6,987	55%	
Leather/Leather products		3,500	4,946	355	558		3,105	4,324	87%	
Male		34,383	39,314	4,297	5,509		25,345	28,936	74%	
Female		5,617	10,358	758	720	95%	7,211	8,272	80%	
Total Value of Investment Increased	USD	4,000,000	10,468,591	765,500	717,268	94%	3,665,500	7,104,344	68%	
Aquaculture		2,100,000	8,461,763	700,000	702,442		2,000,000	5,664,009	67%	
Horticulture		1,000,000	1,050,621	65,500	14,826		785,500	684,128	65%	
Leather/Leather products		900,000	956,208	0	0	0	880,000	756,208	79%	
Number of persons participated in WF -dev program	Number		18,445	1,580	1,239	78%	15,080	13,743	75%	
Aquaculture			5,540	80	570	713%	3,837	5,769	104%	
Horticulture			2,666	300	0	0%	2,730	1,366	51%	
Leather/Leather products			10,239	1,200	669		8,514		65%	
Male			7,953	869	297		9,529		63%	
Female			10,493	711	942		5,551	8,761	83%	
No. of workers and managers trained on Bangladesh labor laws 2006	Number		,				,	,		
Aquaculture										
Horticulture				INDICATOR DISCONTINUED						
Leather/Leather products										
Male										
Female										
Number of Firms and farmers receiv- ing USG assistance to improve man- agement Practices	Number		44,637							
0			44,637	2,0			20,510		99%	
Aquaculture			37,241	1,730	5,917		17,605	34,088	92%	
Horticulture			7,167	300	4,080		2,751	9,922	138%	
Leather/Leather products			229	30	0	0%	154	22.969	50%	
Male Female			33,893	1,648	7,383	448%	16,033	32,868	97%	
Number of Firms and farmers receiv- ing USG assistance to access formal loan or micro-credit	Number		10,744	412	2,614	634%	4,477	11,256	105%	
			7,734	258	71		3,058		86%	
Aquaculture			3,982	250	55		2,253	2,895	73%	
Horticulture			3,737	0	0	0	783		100%	
Leather/Leather products			15	8	16		21	23	153%	
Male			4,996	129	38		1,629	4,459	89%	
Female Number of firms and farmers receiving USG assistance to invest in improved technologies	Number		2,738 83,779	129 4,860	13 922		1,429		99%	
Aquaculture			65,431	2,230	13,922 7,617		38,410 29,368	63,978	98%	
Horticulture			18,139	2,230	6,305		29,368 8,792	18,844	104%	
Leather/Leather products			209	30	0,505	0%	251	94	45%	
M-1-			209	30	11.101	2000/	231	94	75/0	

^{*}Jobs are calculated using job model to estimate the across the value chain results of job creation.

3,888

2,913

11,191

288%

281%

67,802

15,114

Male

Female

PRICE PERFORMANCE: Q1'12 (OCT-DEC 11) AND ACCUMULATED

Source of data: Partner interviews for enterprises. In the case of farmer groups, small sample surveys for quarterly performance and statistical sample surveys for annual performance. GHERS information is reported by the World Fish Center. Direct job information is complemented using a statistical model to estimate associated job creation across the value chain.

AQUACULTURE PERFORMANCE: OCT-DEC' 11

The aquaculture sector helped to increase the sales revenue by \$13.68 million during this quarter (October-December'11). Kahaloo Matshya Chashi Samoby Samity, SSURDA, Sherpur Matsha Chashi Somobay Somity, Talora Ancholic Matsha Chashi Somobay Somity, and SME Feeds Limited were the highest sales achievers in the fish subsector. GHERS, Organic Shrimp Export, Jalalabad Frozen Sea Food Ltd., and Jahanabad Frozen Foods Ltd. in the shrimp subsector played an important role in increasing sales.

In these three months, 4,853 full time equivalent new jobs (including 321 for females) have been created in the aquaculture sector as a result of PRICE activities. Kahaloo Matshya Chashi Samoby Samity, SSURDA, Sherpur Matsha Chashi Somobay Somity, and Mulia Matshajibi Somity are the leading partners in Fish subsector who created the new jobs. The GHERS initiative in the shrimp subsector has contributed 3,722 new jobs in this guarter.

Aquaculture sector partners have increased their investment in fixed assets by more than 702,000 this quarter, mainly in the fish subsector. Trinamool Manobik Unnayan Shongstha (TMUS)-2 invested the highest amount - \$109,000 - followed by Muktagacha Fish Farming and Business Association and Golden Harvest Sea Food and Fish Processing Ltd.

Achievements in Aquaculture d	iuring Oct-Dec 11
Sales increased	\$13.68 million
New jobs	4,853
Investment increased	\$702 thousand
Farmers trained in technology	7,617
Farmers trained in management	5,917
Training for workforce development	570

PARTNER-WISE RESULTS IN FISH: OCT-DEC' 11

Region	Partner	Sales	Increased	(USD)	No. of	Total Jobs	Investment Increased	
Re		Domestic	Export	Total	Male	Female	Total	(USD)
	Digherkanda Matsopona Beboshahi-Kallan Bohumukhi Somabaya Somity (DMBBS)	275,766	0	275,766	12	0	12	567
	Phulpur Fish and Prawn Farmers' Association (PFPFA)	191,802	0	191,802	17	0	17	2,743
bur	Phulpur Fish and Prawn Farmers' Association (PFPFA)-2	-174,108	0	-174,108	-25	0	-25	538
Mymensingh-Jamalpur	Trisal Fish Farmers' Business Somity (TFFS)-1	-874,666	0	-874,666	-340	-1	-341	1,089
ngh-J	Trisal Fish Farmers' Business Somity (TFFS)-2	-690,583	0	-690,583	-54	0	-54	4,110
nsi	Nokla Motsojibi Somity	39,912	0	39,912	76	17	94	7,722
me	Bamunji Beel Motsojibi Somity	17,962	0	17,962	32	8	40	2,911
My	Muktaghacha Fish Farming and Business Association	416,708	0	416,708	95	0	95	50,089
	Unnayn Sangha	51,941	0	51,941	27	0	27	3,350
	Tarakanda Satata Motso Beboshahi Somity	106,395	0	106,395	34	0	34	2,278
	Bhaluka Motso Chasi Somoboy Somity	3,567,987	0	-3,567,987	55	-5	50	20,671
	Trinamool Manobik Unnayan Shongstha (TMUS)-1	249,979	0	249,979	73	-0	72	5,073
	Trinamool Manobik Unnayan Shongstha (TMUS)-2	-113,561	0	-113,561	-299	0	-299	109,620
	Chitralatha Aqua Park Ltd	-2,125	0	-2,125	1	0	1	361
	Kahaloo Matshya Chashi Samoby Samity-1	1,144,137	0	1,144,137	535	0	535	26,266
	Kahaloo Matshya Chashi Samoby Samity-2	610,990	0	610,990	79	-0	79	14,477
	Pachpir Bazar Matsya Chashi Samoby Samity-1	63,022	0	63,022	18	0	18	397
	Pachpir Bazar Matsya Chashi Samoby Samity-2	20,739	0	20,739	4	0	4	443
	Murail Matsya Chashi Samoby Samity-1	239,052	0	239,052	57	0	57	1,051
ahi	Murail Matsya Chashi Samoby Samity-2	302,909	0	302,909	39	-0	39	12,550
Bogra-Rajshahi	Society for Sustainable Development for the Rural & Urban Area (SSURDA)	1,249,032	0	1,249,032	333	0	333	63,122
ogra-	Talora Ancholik Matsa Chasi Somobay Somity	1,159,258	0	1,159,258	100	2	102	8,519
B	Sherpur Matsa Chasi Somoboya Somity	2,846,592	0	2,846,592	199	-4	196	22,734
	Kahaloo Matshya Pona Utpadankari							
	Somoby Somity	774,781	0	774,781	-385	-8	-393	35,635
	Adamdhighi Khudra Motso Beboshahi Somity	524,162	0	524,162	-8	-1	-9	7,066
	North Bengal Thaitech Tilapia Hatchery	-639	0	-639	-1	0	-1	354
	Agriculture Advisory Society (AAS)- (Aqua)	409,288	0	409,288	-491	-0	-491	9,877
	Palli Bandhu Kallan Sangstha	68,156	0	68,156	29	0	29	4,626
	Chitralatha Aqua Park Ltd- Farmers							
	North Bengal Thaitech Tilapia Hatchery-	166,227	0	166,227	-48	-2	-50	6,257
	Farmers	193,631	0	193,631	-52	0	-52	4,628

PARTNER-WISE RESULTS IN FISH: OCT-DEC' 11

		1		1			- I	
	Society For Social Services (SSS)-1	229,856	0	229,856	139	0	139	9,399
	Society For Social Services (SSS)-2	176,248	0	176,248	36	-0	36	196
akhal	Janaseba Kendra (JSK)- 1	-2,085	0	-2,085	15	0	15	0
la-No	Janaseba Kendra (JSK)- 2	9,742	0	9,742	16	0	16	843
Comilla-Noakhali	Janaseba Kendra (JSK)- 3	87,204	0	87,204	47	0	47	4,135
	Bangladesh Cage Culture Owners Association (BCOA)	0	0		0	0		0
	Nazirertek Fish-dryers Multipurpose Coop-	0	0	0	0	0	0	0
	erative Somity-1	0	0	0	0	0	0	0
	Nazirertek Fish-dryers Multipurpose Cooperative Somity-2	0	0	0	0	0	0	0
azaı	Allahwalla Hatchery & Farming Complex	28,222	0	28,222	-2	0	-2	2,532
Cox's Bazar	Samridhi Bohumukhi Matsya Unnayan Gobesana Kendra	2.612	0	2 (12	2	0	2	203
Cox	Niribili Telapia Hatchery	2,612 -24,469	0	2,612	-38	0	-38	0
	Niribili Telapia Hatchery- Farmers	173,556	0	-24,469 173,556	-38	0	-38	6,435
	Allahwalla Hatchery & Farming Complex -	173,330	0	173,330	8	0	0	0,433
	Farmers	117,510	0	117,510	30	0	30	3,814
	Samridhi Bohumukhi Matsya Unnayan Gobesana Kendra -Farmers	106,934	0	106,934	24	0	24	3,004
	Mulia Matshyajibi Samittee	46,363	0	46,363	199	1	200	23,825
	Goldhamari Motshojibi Samabay Somity	125,087	0	125,087	85	-0	85	14,917
	South Bay (Pvt) Ltd	-165	0	-165	4	0	4	291
	Nowapara Fisheries Complex	7,834	0	7,834	4	2	6	5,696
	Ma Fatema Fish Hatchery	7,878	0	7,878	5	0	5	0
	Pori Matshya Hatchery	4,608	0	4,608	-1	0	-1	2,532
	Rupali Fish Hatchery	2,603	0	2,603	5	0	5	0
	Shuvra Matshya Hatchery	12,456	0	12,456	2	0	2	0
	Deesha Samaj Kolyan Sangstha	48,335	0	48,335	47	0	47	2,510
	Din Bijoy Enterprise-(Fish)	0	0	0	0	0	0	0
ا ــ	Vairob Fish Agency-(Fish)	28,932	0	28,932	0	0	0	0
l î	Razu Enterprise-(Fish)	24,238	0	24,238	0	0	0	0
Κh	Modina Matshya Prokolpo-(Fish)	0	0	0	0	0	0	0
ore-	Mondal Fish- (Fish)	6,140	0	6,140	0	0	0	0
Jessore-Khulna	Satata Fish- (Fish)	69,677	0	69,677	0	0	0	0
¬	Satkhira Feed Industries Ltd(Fish)	517,595	0	517,595	10	23	33	0
	South Bay (Pvt) Ltd-Farmers	32,237	0	32,237	-35	0	-35	2,592
	Nowapara Fisheries Complex-Farmers	215,013	0	215,013	135	0	135	21,730
	Ma Fatema Fish Hatchery-Farmers	54,699	0	54,699	28	-0	28	1,614
	Pori Matshya Hatchery-Farmers	174,355	0	174,355	90	-0	90	3,333
	Rupali Fish Hatchery-Farmers	248,162	0	248,162	91	-0	91	3,122
	Shuvra Matshya Hatchery-Farmers	208,033	0	208,033	99	-0	99	0
	Trinomooll Krishi Unnayan Shomoby Shamitee Ltd. (TKUSS)	0	0	0	0	0	0	0

PARTNER-WISE RESULTS IN FISH: OCT-DEC' 11

D	Golden Harvest Sea Food & Fish Process-							
h	ing Limited	0	312,621	312,621	5	6	11	44,304
a	Fishtech (BD) Limited	151,013	0	151,013	1	0	1	3,608
k a	SME Feeds Ltd.	948,751	0	948,751	81	3	85	20,833
Total Fish		9,800,102	312,621	10,112,723	1,091	41	1,131	634,577

^{*}Direct job information is complemented using a statistical model to estimate associated job creation across the value chain.

^{*} Source of data: Partner interviews for enterprises and small sample size survey for farmer groups.

PARTNER-WISE RESULTS IN SHRIMP: OCT-DEC' 11

on	Partner	Sales	Increased (US	SD)	No. of	Total Jobs ated*	c Cre-	Investment Increased	
Region		Domestic	Export	Total	Male	Female	Total	(USD)	
	Gazi Fish Culture Ltd	29,772	-151,899	-122,127	-2	7	5	34,241	
	Din Bijoy Enterprise-(Shrimp)	20,570	0	20,570	3	1	4	127	
	North Khulna Poultry and Fish Feed	0	0	0	0	0	0	0	
	Aqua Star Hatchery & Agro- Complex	0	0	0	0	0	0	0	
	Vairob Fish Agency-(Shrimp)	247,150	-77,304	169,847	3	2	5	508	
	Razu Enterprise-(Shrimp)	72,643	-6,434	66,209	3	1	3	0	
	Mofa Fish Pvt Ltd.	0	0	0	0	0	0	0	
	Modina Matshya Prokolpo- (Shrimp)	49,367	-13,291	36,076	1	5	7	0	
	Mondal Fish- (Shrimp)	38,382	-2,673	35,708	2	0	2	0	
lna	Satata Fish- (Shrimp)	114,142	-6,586	107,556	1	4	5	0	
Jessore-Khulna	Satkhira Feed Industries Ltd (Shrimp)	123,544	0	123,544	0	0	0	0	
sore	S M Shrimp Culture	0	0	0	0	0	0	0	
Jes	GHERS-1 by The WorldFish Center	1,227,494	-439,895	787,599	518	20	538	11,837	
	GHERS-2 -2010 by The World- Fish Center	-183,652	-881,849	1,065,501	294	24	318	9,029	
	GHERS-2 2011 by The WorldFish Center	686,807	1,074,236	1,761,043	2,610	198	2,809	12,125	
	BSFF	0	0	0	0	0	0	0	
	Rupali Sea Foods Ltd	0	41,538	41,538	6	6	12	0	
	Organic Shrimp Export Ltd	0	524,750	524,750	-4	-9	-13	0	
	Jahanabad Frozen Foods Ltd	0	381,695	381,695	4	4	8	0	
	Jalalabad Frozen Sea Foods Ltd	0	481,676	481,676	3	6	9	0	
	Mofa Fish Processing Pvt Ltd	0	130,817	130,817	-1	11	9	0	
	M.U. sea Foods Ltd	0	88,698	88,698	0	0	1	0	
	Bangladesh Frozen Foods Exporters Association	0	0	0	0	0	0	0	
	Islamia Fishing Limited-(Shrimp)	0	0	0	0	0	0	0	
Cox's Bazar	Yunus Fishing Limited	0	0	0	0	0	0	0	
Tota	l Shrimp	2,426,220	1,143,479	3,569,699	3,441	280	3,722	67,865	

^{*} Direct job information is complemented using a statistical model to estimate associated job creation across the value chain. Source of data: Partner interviews for enterprises. GHERS information is reported by the World Fish Center.

HORTICULTURE PERFORMANCE: OCT-DEC' 11

Through October'10 – September'11 PRICE assisted Horticulture partners increased their sales by \$12.77 million. GUKED, Seed Potato Growers Cooperative Society, Kansat Mango Farmer Multi purpose Cooperative Society Ltd, EFADF Agro Business, Golden Harvest Agro Industries and Lalteer Seed Ltd contributed highest in increasing the sales. A total of 3,453 full time equivalent jobs (out of which 2,551 male and 902 were female) were created by the partner. GUKED, Kansat Mango Farmer Multi purpose Cooperative Society Ltd, ANKUR-farmer, EFADF Agro Business, Agricultural Advisory Society and Pride Agro Enterprise- Potato farmers generated most of the jobs in horticulture sector.. Investment was increased \$175 thousand during this year.

Sales increased	\$12.77 million
New jobs	3,453
Investment increased	\$175 thousand
Farmers trained in technology	7,231
Farmers trained in management	4,126
Training for workforce development	1,270

PARTNER-WISE RESULTS IN HORTICULTURE: OCT-DEC' 11

Region	Product	Douteon	Sales I	ncreased (l	USD)	No. of	Invest- ment In-			
Reg	Proc	Partner	Domestic	Export	Total	Male	Fe- male	Total	creased (USD)	
		Gram Unnayan Karma Enterprise Development (GUKED)-1	102,549	0	102,549	15	-10	5	0	
		Gram Unnayan Karma Enterprise Development (GUKED)-2	-201,639	0	-201,639	-1	0	-1	0	
		Gram Unnayan Karma Enterprise Development (GUKED)-1 Farmers	61,220	0	61,220	76	0	76	196	
		Murail Rural Development Multi- purpose Cooperative Society Ltd	15,737	0	15,737	3	0	3	0	
	Potato	Seed Potato Growers' Cooperative Society Ltd.	8,718,727	0	8,718,727	145	23	168	0	
	Po	Rural Development Academy (RDA)	10,734	0	10,734	6	0	6	0	
		Ankur Seed and Himagar	33,722	0	33,722	23	0	23	0	
		Ferdous Biotech Ltd	134,842	0	134,842	25	0	25	0	
		Bombay Sweets & Co Ltd	0	0	0	0	0	0	0	
		Sajeeb Seeds	11,307	0	11,307	2	0	2	0	
		Unique Seeds	47,807	0	47,807	22	0	22	0	
		Technology For Rural Develop- ment (TFRD)	104,276	0	104,276	13	0	13	0	
		Shibgonj Upazila Farmers Cooperative Shamitee (SUFCSL)	0	0	0	0	0	0	0	
Bogra-Rajshahi	Egg-plant	Agricultural Advisory Society (AAS)-(Horti)	166,199	0	166,199	65	-4	62	0	
Bo	Mango	Al Fida Cooperative	0	0	0	0	0	0	0	
	ing	Grameen Krishak Sohayak Sang- stha Enterprise (GKSSE)	107,202	0	107,202	39	7	46	11,392	
	Cross-Cutting	Grameen Krishak Sohayak Sang- stha Enterprise (GKSSE)- Farm- ers	466,654	0	466,654	208	0	208	0	
	$C_{\mathbf{r}}$	Riya Fertilizer	97,443	0	97,443	17	2	20	1,253	
		Blue Moon International	0	0	0	0	0	0	0	
		Kansat Mango Farmer Multipur- pose Co-operative Society Limited	0	0	0	0	0	0	0	
	ogı	Kansat Mango Farmer Multipur- pose Co-operative Society Limited- Mango Stands in Dhaka	0	0	0	-7	0	-7	0	
	Mango	Bonolota Mango Producer Cooperative Society Ltd	0	0	0	0	0	0	0	
		Bonolota Mango Producer Coop- erative Society Ltd- Mango Stands in Dhaka	0	0	0	-1	0	-1	0	

PARTNER-WISE RESULTS IN HORTICULTURE : OCT-DEC' 11

		Konika Seed Company Ltd	265,438	0	265,438	10	5	15	187
		Muktir Alo Agro Business-(Potato)	0	0	0	0	0	0	0
		Pride Agro Enterprise-(Potato)	3,190	0	3,190	3	0	3	0
		Krishak Bandhu Karmashuchi-	13,981	0	13,981	0	0	0	0
		(Potato)	22,2 2 2	_	10,201	,	·	v	v
		Golden Seed Processing Farm	20,506	0	20,506	1	0	1	0
		Krishak Bandhu Karmashuchi - Po- tato Farmers	0	0	0	0	0	0	0
		Golden Seed Processing Farm - Farmers	20,506	0	20,506	1	0	1	0
	Potato	Pride Agro Enterprise- Potato Farmers	0	0	0	0	0	0	0
		Golden Seed Processing Farm - Farmers	0	0	0	0	0	0	0
		Muktir Alo Agro Business-Potato Farmer	0	0	0	0	0	0	0
lna		Dipti Agro Enterprise	0	0	0	0	0	0	0
(chu		Shushilon	0	0	0	0	0	0	0
re-I		Rural Reconstruction Foundation	0	0	0	0	0	0	0
Jessore-Khulna		Proshikkhito Jubo Kalyan Agro Enterprise	0	0	0	0	0	0	0
		Muktir Alo Agro Business-(Eggplant)	696	0	696	0	0	0	0
		Pride Agro Enterprise-(Eggplant)	0	0	0	0	0	0	0
		Krishak Bandhu Karmashuchi- (Eggplant)	36,821	0	36,821	0	0	0	0
	Egg plant	Krishak Bandhu Karmashuchi- (Eggplant)- Farmers	33,058	0	33,058	4	-0	4	0
		Muktir Alo Agro Business (Eggplant)- Farmers	98,750	0	98,750	15	4	19	0
		Uttaran Agro Enterprise	0	0	0	0	0	0	0
		Chesta Agro Enterprise	0	0	0	3	0	3	0
	Mango	ANKUR-Farmers	0	0	0	0	0	0	0
	Ma	Uttaran Agro Enterprise -Farmers	0	0	0	0	0	0	0
		Adorsho Foundation	0	0	0	0	0	0	0
		Padma Seeds	132,354	0	132,354	3	0	4	0
	ting	Organix	64,922	0	64,922	4	2	5	0
	Cut	EFADF Agro Business	585,505	0	585,505	73	9	82	1,797
	Cross-Cutting	Action In Development (AID) Agro Mart	0	0	0	0	0	0	0
)	Renaissance	0	0	0	0	0	0	0
	Potato	Surovi Agro Industries Ltd.	0	0	0	0	0	0	0
ıka	Pot	Golden Harvest Agro Industries Limited	687,636	24,084	711,719	4	4	8	0
Dhaka	Egg plant	Bhaterchar Krishak Unnyan Bahu- mukhi Samabai Samity	0	0	0	0	0	0	0
		Syngenta Bangladesh Limited	0	0	0	0	0	0	0
	Cross-Cutting	Lalteer Seed Limited	354,430	0	354,430	-1	2	1	0
		Total Horticulture	12,194,570	24,084	12,218,654	775	42	818	14,826

^{*} Direct job information is complemented using a statistical model to estimate associated job creation across the value chain.

Source of data: Partner interviews for enterprises and small sample size survey for farmer groups.

LEATHER PRODUCTS PERFORMANCE: OCT-DEC' 11

In jobs creation, PRICE-supported leather partners produced 558 new full time jobs; of which 64% are women. Apex Adelchi Footwear Ltd, FB Footwear Ltd, and PICARD increased their sales most among partners. One-hundred perdent of the leather sector's increased sale goes to the export market. Sixteen SMEs have received access to loan facilities through PRICE assistance in the reporting period.

Achievements in Leather Products during Oct-Dec'11

Sales increased	\$ 8.40 million
New jobs	558
Investment increased	669
Training for workforce development	16

PARTNER-WISE RESULTS IN LEATHER PRODUCTS: OCT-DEC' 11

	Doutes	Salo	No. of Total Jobs Cre- ated			Investment		
Region	Partner	Domestic	Export	Total	Male	Female	Total	Increased (USD)
Re	LFMEAB - Apex Adelchi Footwear Ltd.	-	2,534,250	2,534,250	87	151	238	-
	LFMEAB - Bay Footwear Ltd.	-	675,000	675,000	-	-	-	-
	LFMEAB - Jennys Shoes Ltd	-	288,225	288,225	-	-	-	-
	LFMEAB - Landmark Footwear Ltd	-	956,250	956,250	-	-	_	-
	LFMEAB - Apex Leather Craft Fashion & Accessories	-	360,000	360,000	-	-	_	-
	LFMEAB - PICARD	-	1,286,000	1,286,000	64	70	134	-
	LFMEAB - Bengal Shoe Industries	-	-	-	-	-	-	-
	LFMEAB - FB Footwear Ltd	-	1,875,000	1,875,000	-	-	-	-
	Leather Technologist SME Entrepreneur (LTSE)	-	-	-	-	-	-	-
	Bangladesh Association for Social Advancement (BASA)	-	-	-	-	-	-	-
Dhaka	Bangladesh Leather Service Center (BLSC)	-	-	-	-	-	-	-
	Raian Shoe	-	-	-	-	-	-	-
	Deya Leather	-	-	-	-	-	-	-
	Flaying Campaign	-	-	-	-	-	-	-
	Other SMEs	-	-	-	-	-	-	-
	Aarong - 20 Supplier SMEs	-	-	-	-	-	-	-
	COEL	-	427,500	427,500	51	135	186	-
	Kaluhati Cluster	-	-	-	-	-	-	-
Jessore-Khulna	Rishilpi	-	-	-	-	-	-	-
Jess	Total Leather Products	0	8,402,225	8,402,225	202	356	558	0

Source of data: Partner interviews



POVERTY REDUCTION BY INCREASING THE COMPETITIVENESS OF ENTERPRISES (PRICE)